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QUEENSLAND

ANNUAL REPORT

OF THE

HEALTH AND MEDICAL SERVICES

OF THE

STATE OF QUEENSLAND

FOR THE

YEAR 1962-63

PRESENTED TO PARLIAMENT BY COMMAND

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HEALTH AND MEDICAL SERVICES

ERRATA

Page 9.

Omit from Table IX the word "Paratyphoid" and the figures shown therefor.

Add after the words "Typhoid Fever" the words "(including paratyphoid)".

Page 18.

First paragraph—Substitute "Cloncurry" for "Chinchilla".

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ANNUAL REPORT OF THE DIRECTOR-GENERAL OF HEALTH AND MEDICAL SERVICES 1962-63

The Honourable the Minister for Health and Home Affairs

SIR,—I have the honour to submit for your information the Annual Report of the Health and Medical Services Branch of the Department of Health and Home Affairs for the year ended 30th June, 1963.

ABRAHAM FRYBERG,
M.B., B.S. (Melb.), D.P.H., D.T.M. (Syd.),
Director-General of Health and Medical Services.

INTRODUCTORY REMARKS

STAFF

Dr. P. R. Patrick, Chief Medical Officer, School Health Services, was appointed to the position of Senior Health Officer, Health and Medical Branch.

Dr. G. M. S. May, Medical Officer, School Health Services, was appointed Chief Medical Officer, School Health Services.

Dr. M. H. Gabriel, Health Officer, was successful in gaining the Diploma in Public Health at the University of Sydney and resumed duty on 3rd December, 1962.

Dr. G. S. Urquhart was appointed Deputy Director of Mental Hygiene.

VITAL STATISTICS

The birth rate decreased from 24·2 to 23·2 per thousand population in the past year, 947 less babies being born. This rate is higher than the Australian average of 22·1. It is interesting to note from Table II that the birth rate fell in all Australian States, United States of America, and Canada in 1962 as compared with 1961. The only common factor which will explain this is the wide use of oral contraceptive pills. Two eminent overseas visitors have sounded a note of warning as they are of the opinion insufficient time has elapsed to know if constant use of this method of family planning will eventually cause complications in the mother or her child.

The infant mortality rate increased from 20·0 (733 infants) to 21·1 (754 infants) per thousand live births, an increase of 21. The total deaths from diseases of early infancy showed a decrease of 17 but the pleasing feature was a decrease in deaths due to immaturity. The cause of death in this group might be due to conditions both prior to and after birth, many of the former being unrecognised and this makes for difficulty in treatment during the ante-natal period. Adequate ante-natal treatment is a factor in reducing infant as well as maternal mortality, and an improvement in this might be a reason for the decrease in deaths due to immaturity as well as a lowered maternal mortality rate.

The maternal mortality rate fell from 0·76 (28 deaths) to 0·64 (23 deaths) per thousand live births, a figure which is far higher than the Australian figure of 0·36.

Diseases of the circulatory system were again the chief cause of death with cancer as the second principal cause. These two causes account for the increase in the total number of deaths from 12,756 to 13,182. There was an increase in deaths from lung cancer from 219 males and 31 females in 1961 to 235 males and 32 females in 1962. This increase is a real one. Extensive campaigns against smoking are being conducted throughout the world and it is hoped that the results of this will be reflected in a lower death rate when the children of today reach the 45 years age group. If the increased profits of tobacco companies are an indication of increased sales it would appear that the good work of the Queensland Health Education Council is falling on deaf ears.

The number of deaths from motor vehicle traffic accidents increased from 349 to 408. The research which is being carried out by officers of the Department is continuing and it is hoped that conclusions will be reached in the coming year as to the cause of accidents and the best methods of reducing the physical damage which results from them. Despite our efforts in education we appear to be making little headway in impressing upon the community that speed and alcohol are potent causes of accident morbidity and mortality.

COMMUNICABLE DISEASES

The total number of notifications received (2,972) was 15 less than the previous year.

There was only one proven case of poliomyelitis notified as against 162 the previous year when an epidemic occurred. This outbreak occurred because the immunisation by three injections of Salk vaccine did not give a sufficiently high level of antibodies for protection against the poliomyelitis virus so, in order to boost this level, a fourth injection has been recommended. The response by the public to this has been poor particularly in the over 15 years age group of which only 19 per cent. have been fully immunised. Of the 20 cases of tetanus notified, 18 were in the over 15 years age group. Only one case of diphtheria was notified. Immunisation is the answer to the control of diphtheria, tetanus, and poliomyelitis, and parents must accept responsibility for failing to have themselves or their children protected if they become infected.

Infective Hepatitis

The incidence as shown by the notifications fell from 1,060 in 1961-62 to 988, a decrease of 72. This disease attacks both sexes and appears to be more common in children and young adults: 353 (35·7 per cent.) notifications occurred in the 5-14 ages group and 241 (24·4 per cent.) in the 15-24 years age group. Little is known about control but emphasis should be placed on personal hygiene.

Leptospirosis

This is an occupational disease, most cases coming from cane cutters (41), dairy farmers (31), and meat workers (22). The leptospirae are passed out in the urine mainly of infected rats and enter the body through the skin even though it is unbroken. A preventive procedure is the wearing of boots, long trousers, and shirts but in the Queensland climate most workers refuse to carry out these recommendations in regard to dress because of discomfort. The control of infected animals should be carried out rigorously.

SECTION OF ENTHETIC DISEASES

The number of notifications of venereal disease fell from 1,525 to 1,473. There was little change in the number of cases of gonorrhoea while notifications of the infectious stages of syphilis increased.

What again causes concern is the high incidence of venereal disease in the 16-20 years age group. In 1958-59 financial year, 965 notifications were received, and of these 194 (or one-fifth) of the total notifications were in the 16-20 years age group. In 1962-63 1,473 notifications were received of which 476 (or approximately one-third) were in the 16-20 years age group.

The statistics for births are a cause for, if anything, greater concern to the parents of this State.

In 1962 there were 2,470 illegitimate births. 687 or 28 per cent. of these illegitimate births were to mothers under the age of twenty years. 2,773 babies were born to couples married less than eight months of whom 1,273 were born to mothers under the age of nineteen years. An allowance of 7·3 per cent. (202 births) must be made for babies born prematurely but even allowing for these the large number of children born to couples married less than eight months must be a matter of grave worry to parents.

From these statistics of venereal disease and births it must be accepted that promiscuity has increased in the teen-age group in the past five years. The statistics only give an indication of the extent of the problem for they refer to the unfortunate ones who have been found out.

We might well ask the cause of this. Teenagers roam the streets until the early hours of the morning because of lack of parental discipline and generally an unsatisfactory home life. The only answer I can see is an appreciation of this by parents who should make every effort to set up a happy home in which can be found high standards of social behaviour and a strongly developed sense of social responsibility.

SECTION OF FOOD AND DRUGS

For some years now I have recorded adulteration of minced meat—a food used by invalids and infants—with sulphur dioxide, but despite prosecutions butchers continue to add this preservative. Meat so treated gives the customer the impression, because of its bright colour, that it is fresh. The addition of sulphur dioxide to sausages is allowed at the rate of 3·5 grains to the pound but consideration is being given to the suggestion that this also be prohibited. This question will be discussed at the next annual meeting of the National Health and Medical Research Council.

Generally speaking, vendors of food have been co-operative in selling pure food to the public. Inspectors approach their tasks by seeking the co-operation of the public and prosecution only follows as a last resort.

Every effort is being made to achieve uniformity in the labelling of food and drugs by all States and although progress made is slow this has nearly been achieved. All new drugs are placed in Schedule IV which requires a doctor's prescription. The medical profession requires wide testing of new drugs before doctors will prescribe them for patients.

A committee has been formed to supervise babies deformed by the use of thalidomide by their mothers. The Department will provide all appliances free of charge as well as transport to Brisbane when they are seen by the committee. These children will be seen at regular intervals to make certain re-education is continuing.

In my last report I mentioned a southern manufacturer, who was apparently under the impression that the *"Dangerous Substances Regulations"* did not apply to his products, had appealed to the Supreme Court but the Department's view was upheld. He then appealed to the High Court of Australia but the case was dismissed without hearing submissions from our Counsel.

SECTION OF ENVIRONMENTAL SANITATION

There is no more important activity carried out by officers of the Department than that of the inspectors of this Section. Poor sanitation results in the spread of communicable diseases, particularly those which are intestinal in origin. The fact that communicable diseases, except infective hepatitis, are well controlled gives some Local Authorities a feeling of complacency. If vigilance is relaxed epidemics of disease will spread. The answer to most environmental problems will be found by the installation of sewerage and a good water supply. Action is being taken by several Local Authorities to have these amenities installed.

FLUORIDATION OF WATER

It is hoped in the coming year that many Local Authorities will install fluoridation schemes. Biloela and Townsville have already indicated they will do so when legislation is passed to clarify the legal position.

Investigations have been carried out by medical and dental authorities in many countries throughout the world and all agree that fluoridation of water is safe and is a practical method of reducing the incidence of dental caries. It is true there is non-acceptance from a few medical and dental practitioners but the most vociferous are non-scientific people. It must be remembered that there were loud objections when anaesthesia and immunisation were first introduced.

The latest contribution to the literature is a booklet published by the Ministry of Health of Great Britain in April, 1963, which sets out the salient facts about fluoridation. Surveys have shown that children born and brought up in areas where the water naturally contains one part per million of fluoride have less than one-half the dental decay of children in areas where there is only a trace of fluoride. In Queensland many waters contain fluoride naturally and the incidence of dental caries confirms findings elsewhere.

The Ministry pamphlet reports, after a study of the effect of fluoridation in Great Britain, the results showed that—

> "(*a*) among those children who had had the benefit of fluoridation all their lives, the average number of teeth affected by decay was cut by more than half; nearly twice as many children as formerly had completely sound teeth;
>
> (*b*) no evidence of harm from fluoridation could be found despite the closest watch by all concerned;
>
> (*c*) no technical difficulties arose in adding fluoride to water supplies and maintaining it accurately at the specified level.
>
> The Minister's expert medical and dental advisory committees have strongly endorsed the report on the studies carried out in this country, and have advised the general adoption of fluoridation which they are satisfied carries no hazard. The committees comprise leading members of the dental and medical professions in this country, people with long experience of the careful and critical assessment of the results of medical research."

The Health Department of this State supports the conclusion reached by the World Health Organisation Expert Committee on Water Fluoridation in 1958 that "the effectiveness, safety and practicability of fluoridation as a caries-preventative measure has been established." I strongly urge Local Authorities to implement fluoridation schemes in their areas. By so doing they will be rendering a service to the children of this State in preventing not only dental caries but ill-health in later life.

SECTION OF AIR POLLUTION

Pollution of the atmosphere has been the subject of investigation by Departmental officers for some time and it is anticipated that a Bill will be introduced this year to control this. The most common outcry is in regard to smoke and in certain suburbs of Brisbane the residents have had every cause for complaint because air pollution has resulted in dirty clothes and houses and damaged vegetation.

In an endeavour to give some relief, approaches have been made to the undertakings concerned and every co-operation has been given. The Southern Electric Authority has been testing its boilers and has found that there was excess grit emission due to dust arrestors being badly eroded. With the correction of this fault there should not be cause for excessive emission. The Southern Electric Authority has adopted the policy now of testing each boiler at regular intervals and the nuisance should not be created if this continues to be done.

The Railways are changing to diesel engines as quickly as finance will permit. It must be appreciated that the adjustments will take time to complete.

In regard to new industries, control procedures will be required to be taken to prevent further atmospheric contamination.

DIVISION OF TUBERCULOSIS

The notifications of tuberculosis received this year increased from 721 to 821. There has been a decrease in notifications for the two years prior to the present financial year despite the fact an increase was expected because of the intensification of the mass X-ray campaign. At first sight it was thought the increase in the past year was due to the campaign but this was not supported by statistics as the number found in this way was unchanged.

The compulsory mass radiography campaign was extended to the metropolitan area following delivery of three caravan-mounted X-ray units. Most citizens realise their responsibility to other members of the community and attend for an X-ray when the X-ray machines are in their area. Those who are remiss in the first instance usually respond after a reminder or a visit of a member of the X-ray team. The few who failed in their obligations are in the process of being prosecuted.

Mass X-ray is the major factor in discovering the unknown case. On the preventive side B.C.G. vaccine is being used to increase the resistance of children who are negative to the tuberculin test. Nurses visit the schools to test children in their final year at primary school and vaccinate them with B.C.G. if they give a negative tuberculin test. Most of this work is being carried out in the larger centres of the State but will be extended to less settled areas when additional nurses, for whom approval has been given, take up duty.

I have previously drawn attention to the high tuberculin positive rate in the children of North Queensland and expressed the opinion that this was due to atypical mycobacteria as an earlier survey had shown there was no demonstrable increase in incidence of pulmonary tuberculosis. However, the incidence found following the compulsory X-ray survey was Cairns 4·97 per thousand micro films taken, Townsville 2·25, Rockhampton 1·45, and Toowoomba 0·56. The Queensland Institute of Medical Research has been carrying out research into atypical mycobacteria but no epidemiogolical studies have been undertaken to explain the variation in incidence in different parts of the State. This is a project which will be undertaken during the coming year.

DIVISION OF INDUSTRIAL MEDICINE

The main objectives of this Division are the prevention of disease and injury in industry. By so doing it plays an important part in the preservation of industrial peace. To function successfully it must have the confidence of employer and employee. The Division acts in an advisory capacity concentrating on the supervision of environmental conditions conducive to occupational illness. Although there is power in the Health Act to make regulations which would enable the recommendations made to be enforced, it is preferred to leave their implementation to the Department of Labour and Industry. That industry and labour appreciate the unbiassed advice tendered is shown by the ready acceptance of the recommendations.

Another important aspect of the work is the health education of employees in healthy living, particularly in the industrial environment. The Director addressed many groups on this subject during the year.

The increasing use of ionising radiations, both in medicine and industry, and the necessity to protect people working in this field against damaging radiations either from the nuclear processes themselves or from waste products resulting from these processes, has occupied the Radiation Health Physics Section. The services of the Health Physicist have been made available for the checking of appliances and advice has been given on all aspects of radiological health.

DIVISION OF MATERNAL AND CHILD WELFARE

There was a fall in the rate of maternal deaths from 0·76 (28 deaths) per 1,000 live births in 1961 to 0·64 (23 deaths) per 1,000 live births in 1962. This rate is much higher than that for Australia (0·36).

For some reason which the Maternal Mortality Committee as yet has been unable to determine, the Queensland rate has always been higher than the Australian rate.

In an examination of the factors which were responsible for the 28 maternal deaths in 1961, avoidable factors were established in 14 cases. This does not mean that death could or should have been averted. These avoidable factors were determined long after the event: therefore, it is easy to be wise then. It does mean, however, that if the particular avoidable factor in the death could have been averted the outcome might have been different.

As a result of the survey of the cases, bulletins were issued to all doctors in the State. The first "The Prevention and Management of Eclampsia" was distributed last year whilst the second "Post-partum Haemorrhage" was sent to all medical practitioners during this year. A third "Shock in Obstetrics" has been completed and will be sent out to medical practitioners in the near future.

To assist in the discussions the Committee has called in various specialists in branches of medicine other than obstetrics for their advice. Arrangements have also been made for obstetrical specialists from the Brisbane Women's Hospital and the Mater Mothers Hospital to be available to give advice to any doctor, particularly a country doctor, who is seeking help. All that is necessary is for the doctor to ring one of these hospitals and ask for the consultant on duty and the telephone exchange is advised whom to ring.

I would again express my appreciation of the co-operation of the members of the medical profession who have been asked for reports. In only one instance has a doctor refused to co-operate.

I would also thank my colleagues on the Maternal Mortality Committee for their assistance in our efforts to lower the maternal mortality rate, particularly the members of the Sub-Committee who prepare the bulletins.

DIVISION OF SCHOOL HEALTH SERVICES

School Health Services play an important part in the field of preventive medicine. Children spend half the days of the year in a school environment. During this period the opportunity is taken to teach them the benefits of personal hygiene and to discover any defects which, if left undetected, will affect the child in later life. In Queensland, examinations are conducted by trained School Health nurses. The discovery of physical and mental defects or illnesses are of little importance unless followed up. Where abnormalities are found it is suggested to parents that the child be examined by their own doctor or the local hospital. It is pleasing to note that over 83 per cent. of parents accepted the advice within two months. Follow up of parents continues until most children are attended to.

The most common defects found are deafness and defective vision which, if not detected, might mean the child is diagnosed by the teacher as mentally defective when all that is needed is to bring the child to the front of the class.

The teaching of health to the children is carried out by their teachers who use as a text book a publication of the Queensland Health Education Council. This text book has received favourable criticisms by medical practitioners.

DIVISION OF MENTAL HYGIENE

The planning of an integrated psychiatric service was advanced a further step with the enactment of "*The Mental Hygiene Act of* 1962." It has been the practice to send all patients who are certifiable, even though they are likely to require treatment for only a few weeks, to mental hospitals. With the completion of the neuro-psychiatric hospital at Chermside in the near future, patients who were not considered suitable for Lowson House, Brisbane Hospital—that is, patients who are not expected to return to the community in six weeks—will be cared for there. There will always be a small percentage of patients suffering from chronic mental disease who will require custodial care and they will be treated in the mental hospitals. If mental diseases are to be looked upon as just "another disease" they should be treated in general hospitals where all diseases are treated and the patients returned to their homes from where they can attend as outpatients if further treatment is necessary.

The general practitioner plays an important part in keeping these patients out of hospital. It is he who is called to the patient early in his disease; it is he who must determine when the consultant psychiatrist should be called in; and it is he who plays an important part in the after-care of the patient. The curriculum of the medical course only permits of a limited time for the teaching of psychiatry. In order to provide post-graduate study in psychiatry a course is being conducted for general practitioners by members of the Queensland Branch of the Australasian Association of Psychiatrists. There is a shortage of psychiatrists in Brisbane and these general practitioners will be appointed as clinical assistants to the psychiatric teams of the general hospital. Members of the staff of the Brisbane Mental Hospital also will do tours of duty at the Brisbane Hospital and Chermside Neuro-psychiatric Hospital.

Outpatient clinics are attached to the Ipswich, Toowoomba, and Townsville General Hospitals and one will be established at Rockhampton. Inpatient units will be built in association with these hospitals and later this financial year a unit consisting of inpatient beds, day hospital, and outpatient department will be commenced at Princess Alexandra Hospital.

DIVISION OF WELFARE AND GUIDANCE

The number of children presenting at the various centres of this Division continues to increase. Approximately 70 per cent. of the new patients attending the Mary Street Clinic were of school age. It has been estimated in surveys overseas that 12 per cent. of school children are maladjusted to a degree that they need psychological and psychiatric help. Much of this can be given by psychologists of the Education Department but many need specialist psychiatric assistance and in this field the preventive and corrective measures carried out by the Clinic staff have resulted in the child satisfactorily adjusting itself. These measures include treatment of the parents as well as the child as the reason for the child's emotional upset is often the result of an unhappy home life or an emotionally disturbed parent. It is interesting to note that of the 659 cases attending the Mary Street Clinic, 520 (78·9 per cent.) lived with their natural parents as against 131 out of 369 (35·5 per cent.) at the Wilson Youth Hospital.

DIVISION OF LABORATORY SERVICES

Laboratory of Microbiology and Pathology

The work of the Laboratory continues to expand. This is being carried out under difficult conditions because of shortage of accommodation. Good progress is being made with the Health and Welfare building which will include provision for a new laboratory.

It has always been my opinion if a laboratory is not to stagnate it must take an active part in research. The staff of the Laboratory are encouraged to co-operate with the Queensland Institute of Medical Research in its activities. We are very proud that Dr. E. H. Derrick made his discovery of "Q" Fever when he was Director of the Laboratory and it is pleasing that, now he is Director of the Queensland Institute of Medical Research, the staff of the Laboratory are collaborating with him in further research into "Q" Fever and leptospirosis.

A detailed study of traffic accidents is being conducted by Dr. K. Jamieson, Senior Neuro-surgeon of the Brisbane Hospital, and Dr. J. I. Tonge, Director of the Laboratory of Microbiology and Pathology. During the past twelve months 830 traffic accidents in Brisbane resulting in 1,000 successive individuals being either admitted to hospital or dying were investigated. Coding is now taking place and when completed an analysis of the results will take place.

The injury patterns in over 2,000 road accident fatalities in Brisbane for the years 1935-1963 have been coded and are ready for analysis to determine changing trends in these years. It was estimated that the project of Dr. Jamieson which is supported by funds from the National Health and Medical Research Council would take two years.

It is now proposed, subject to further funds being made available from the National Health and Medical Research Council, to expand this project to determine the medical history of the driver and to ascertain the mechanical causes of injury and to relate these to vehicle construction and features, and to accident circumstances.

In regard to these projects the co-operation of the Commissioner of Police and his officers is appreciated.

Government Chemical Laboratory

This Laboratory plays an important part not only as a component of the Health Department but in the activities of other State and Commonwealth Departments and industry. Of particular importance is the Section of Foods, Drugs, and Water.

Milk sold in Queensland is of a high standard as is shown by the high average fat content (3·92 per cent. as against the minimum standard of 3·3 per cent.). The examination of samples of bread showed that bread conformed in most instances to the required standard and there was little poor quality bread baked. Paint samples complied with the standards laid down in the Regulations. Legislation prohibiting the use of lead in paint is one of the most important health measures in the Statutes and every effort is made to see that the law is not breached.

Overcrowding is limiting the growth of the Laboratory but it should be relieved when the Laboratory of Microbiology and Pathology moves to the Health and Welfare Building.

DIVISION OF GERIATRICS

The important problems associated with the care of the aged have only been recognised in recent years. Where in 1910 the expectation of life at birth was 54·2 years for males and 59·3 years for females, it is now 67·14 and 72·75 respectively. The birth rate in 1910 was 27·3 per thousand population; in 1962 it was 23·2. These two factors have resulted in a shift of the relative age distribution of the population. In 1910 the over 65 years age group was 3·7 per cent. of the total population; in 1962 it was 8·6 per cent.

It is in this age group that there is a high incidence of chronic diseases such as cardio-vascular, renal, and mental disease as well as crippling diseases such as arthritis.

In the past it was thought that chronic disease in the aged was synonomous with incurable disease. Patients with conditions following catastrophies such as cerebral haemorrhage were left in bed to die. Today the programme of rehabilitation returns many of them to their homes where they can live an independent life while others must of necessity be transferred to other institutions.

During this year the first geriatric unit in Queensland was opened. It was called after the late Dr. Marjory Warren who has been aptly named the "father" of geriatrics. Dr. Warren visited Queensland in 1958 and gave lectures to the medical profession in various cities of the State. She agreed to accept a medical officer for training and the present Director of Geriatrics was appointed to her unit for twelve months.

The "Marjory Warren Geriatric Unit" at the Princess Alexandra Hospital is equal to any I saw when I was overseas in 1958. In addition to accommodation for 102 male and female patients, it has a day hospital and other ancillary services. Approval has been given for the establishment of another unit at Chermside next year.

DIVISION OF NURSING

The Adviser in Nursing works in close co-operation with the College of Nursing of Australia (Queensland Branch). This was established in January, 1960, and the finance for its administration is found by the Department. Courses in administration and teaching are conducted and the Adviser in Nursing, during her visits to hospitals, takes advantage of the opportunity to explain the value of these courses. Nevertheless, the response has not been good.

The Matrons' Conference which is sponsored by the Department was held in May and 74 matrons from hospitals throughout Queensland attended. These conferences are most important as they give country matrons the opportunity of discussing their difficulties and how these may be overcome. The matrons are also given the opportunity to discuss matters affecting their hospitals with Departmental officers.

DIVISION OF SOCIAL WORK

Medical social work is an expanding activity which had its beginnings with the realisation that there were many factors involved in the recovery of a patient from sickness. Among these are the family economy, the living conditions of the home, social relationships and the like. The aim of the social worker is to help the patient make the best of his circumstances and to keep him, with the aid of his family and any assistance the community is willing and able to give, as a member of society.

Students in Queensland are required to study at the University to qualify as social workers after which they work in special fields. Unfortunately insufficient trained social workers are available for service in mental and general hospitals, with the elderly, the subnormal, and in other specialised fields. In an effort to build up a staff the Department gave fellowships to students who, after graduation, will be trained in the fields of social work where they are most needed.

VITAL STATISTICS

Population

The estimated population of Queensland at 31st December, 1962, was 1,550,370 an increase of 25,092 (or 1·6 per cent.) for the year. The estimated population living in the metropolitan area was 642,000, an increase of 15,900 (or 2·5 per cent.) during 1962.

The population density per square mile is 2·32 persons for the whole of Queensland, 1,311 persons in the metropolitan area, and 1·35 persons for the rest of the State; 40·9 of the population of the State reside in the metropolitan area.

TABLE I

SHOWING POPULATION OF AUSTRALIAN STATES AND THE PERCENTAGE OF ESTIMATED AUSTRALIAN POPULATION RESIDENT IN EACH STATE DURING CERTAIN YEARS (AT 31ST DECEMBER), SINCE 1935

Year	New South Wales		Victoria		**Queensland**		South Australia		Western Australia		Tasmania		Australian Capital Territory	Australia
	Number	Per Cent.	Number	Per Cent.	**Number**	**Per Cent.**	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.	Number	Number
1935	2,658,672	39·3	1,841,595	27·3	**971,297**	**14·4**	586,762	8·4	449,623	6·6	233,623	3·5	14,890	6,755,662
1940	2,790,948	39·4	1,914,918	27·1	**1,031,452**	**14·6**	599,056	8·4	474,076	6·7	244,002	3·5	23,134	7,077,586
1945	2,932,998	39·5	2,015,107	27·1	**1,084,864**	**14·6**	630,882	8·5	490,088	6·6	250,280	3·4	25,978	7,430,197
1950	3,241,057	39·0	2,237,182	28·1	**1,205,418**	**14·5**	722,843	8·7	572,649	6·9	290,333	3·5	37,999	8,307,481
1955	3,526,534	37·9	2,546,332	27·3	**1,358,858**	**14·6**	834,661	9·0	668,609	7·2	324,919	3·5	33,960	9,311,825
1960	3,877,261	37·3	2,888,290	27·8	**1,502,286**	**14·5**	957,022	9·2	731,033	7·0	355,969	3·4	55,272	10,391,920
1961[r]	3,949,420	37·2	2,950,790	27·8	**1,525,278**	**14·4**	980,755	9·2	746,205	7·0	364,134	3·4	62,091	10,603,931
1962	4,016,635	37·2	3,013,447	27·9	**1,550,370**	**14·3**	999,693	9·2	765,715	7·1	369,403	3·4	68,824	10,810,371

[r] Revised

Births

During 1962, births registered in Queensland totalled 35,690, a decrease of 947 on the previous year. The crude birth rate was 23·2, compared with 24·2 in 1961. The births comprised 18,354 males and 17,336 females, giving a masculinity rate of 105·9.

The natural increase (excess of births over deaths) was 22,508, being equal to an increase of 1·5 per cent. of the population.

The birth rate in Queensland remains relatively high, and the rate of natural increase is very satisfactory.

TABLE II

CRUDE BIRTH RATE (PER 1,000 POPULATION)

——	1957	1958	1959	1960	1961	1962
Commonwealth of Australia	22·9	22·6	22·6	22·4	22·9	22·1
Queensland	**24·0**	**23·6**	**24·3**	**23·6**	**24·2**	**23·2**
New South Wales ..	21·9	21·7	21·5	21·4	22·1	21·5
Victoria	22·8	22·5	22·4	22·4	22·6	22·0
South Australia	22·3	22·3	22·1	22·2	23·1	21·6
Western Australia ..	24·6	23·9	24·0	23·4	23·2	22·6
Tasmania	25·7	25·5	25·3	25·5	25·4	24·8
New Zealand	24·8	25·2	25·1	25·0	25·5	24·7
United Kingdom ..	16·5	16·8	16·9	17·5	17·8	*
United States of America	25·0	24·3	24·1	23·6	23·4	22·4
Canada	28·3	27·6	27·5	26·8	26·0	25·5

* Not available

Deaths

For the year 1962 deaths from all causes totalled 13,182, giving a crude death rate (deaths per 1,000 mean population) of 8·6 compared with 8·4 in the previous year, and still below the crude death rate of the Commonwealth of Australia. Table III compares the crude death rates of Queensland, other States, and certain overseas countries since 1957.

Diseases of the heart, hypertension and vascular lesions affecting the nervous system were again the greatest cause of death in the population.

There were 1,937 deaths from cancer as compared with 1,838 in 1961. This is about 15 per cent. of all deaths.

In every 100 male deaths 44 died of a degenerative vascular disease, 15 of cancer and 8 of accident. In every 100 female deaths the respective figures are 46, 15, and 5. The fatal accident rate was much higher in males than in females.

TABLE III

CRUDE DEATH RATE (PER 1,000 POPULATION)

——	1957	1958	1959	1960	1961	1962
Commonwealth of Australia	8·8	8·5	8·9	8·6	8·5	8·7
Queensland	**8·3**	**8·0**	**8·4**	**8·3**	**8·4**	**8·6**
New South Wales ..	9·2	8·8	9·4	9·1	9·0	9·3
Victoria	9·1	8·7	9·0	8·6	8·4	8·6
South Australia ..	8·7	8·6	8·6	8·3	8·1	8·3
Western Australia ..	7·7	7·9	7·7	7·9	7·8	7·7
Tasmania	8·1	8·1	8·1	7·7	7·9	8·0
New Zealand	9·3	8·9	9·1	8·8	9·0	8·9
United Kingdom ..	11·5	11·7	11·7	11·5	12·0	*
United States of America	9·6	9·5	9·4	9·5	9·3	9·5
Canada	8·2	7·9	8·0	7·8	7·7	7·6

* Not available

Marriages

Registration of marriages during the year totalled 10,642, compared with 10,392 in 1961. The marriage rate was 6·9 per 1,000 mean population, the same as in the previous year. Marriages of minors during the year totalled 5,907, of whom 1,421 were males and 4,486 females.

Infant Mortality

The infant mortality rate of Queensland and other States and certain overseas countries is shown in Table V., while Table IV. is a composite one showing the births rates, infant mortality and reproduction rates of Queensland compared with the Commonwealth of Australia.

The net reproduction rate is higher than the Australian average, whilst the maternal mortality rate declined from 5·77 in 1911 to 0·64 in 1962.

If the crude death rate had remained at the level prevailing in 1900, over 4,800 additional deaths would have occurred in Queensland during 1962. In addition, the expectation of life has been increased by 17 years during that period.

TABLE IV

BIRTH, INFANT MORTALITY, MATERNAL MORTALITY, AND REPRODUCTION RATES, QUEENSLAND AND AUSTRALIA

——	Crude Birth Rate		Infant Mortality Rate		Maternal Mortality Rate (1)		Gross Reproduction Rate (2)		Net Reproduction Rate (3)	
	Queensland	Australia	Queensland	Australia	Queensland	Australia	Queensland	Australia	Queensland	Australia
1946	**24·8**	23·7	**29·3**	29·0	**2·26**	1·85	**1·55**	1·46	**1·42**	1·33
1947	**25·6**	24·1	**30·8**	28·5	**1·62**	1·87	**1·64**	1·49	**1·54**	1·36
1948	**24·7**	23·1	**28·0**	27·8	**1·47**	1·40	**1·59**	1·45	**1·51**	1·33
1949	**24·0**	22·9	**24·7**	25·3	**1·44**	1·21	**1·56**	1·46	**1·48**	1·33
1950	**24·4**	23·3	**24·8**	24·5	**1·45**	1·09	**1·60**	1·49	**1·52**	1·42
1951	**24·2**	23·0	**25·7**	25·2	**1·18**	1·05	**1·62**	1·49	**1·54**	1·21
1952	**24·6**	23·3	**24·9**	23·8	**1·03**	0·94	**1·67**	1·55	**1·59**	1·47
1953	**23·9**	22·9	**25·0**	23·3	**0·71**	0·62	**1·65**	1·56	**1·57**	1·48
1954	**23·7**	22·5	**22·3**	22·5	**0·96**	0·69	**1·67**	1·56	**1·62**	1·50
1955	**24·1**	22·6	**20·3**	22·0	**0·62**	0·64	**1·71**	1·59	**1·65**	1·53
1956	**23·5**	22·5	**22·7**	21·7	**0·89**	0·56	**1·72**	1·61	**1·66**	1·55
1957	**24·0**	22·9	**21·6**	21·4	**0·62**	0·63	**1·78**	1·66	**1·72**	1·60
1958	**23·6**	22·6	**19·4**	20·5	**0·47**	0·50	**1·79**	1·67	**1·72**	1·60
1959	**24·3**	22·6	**20·3**	21·5	**0·59**	0·46	**1·87**	1·68	**1·80**	1·61
1960	**23·6**	22·4	**21·0**	20·2	**0·68**	0·53	**1·84**	1·68	**1·77**	1·61
1961	**24·2**	22·9	**20·0**	19·5	**0·76**	0·44	**1·86**	1·73	**1·79**	1·66
1962	**23·2**	22·1	**21·1**	20·4	**0·64**	0·36	*	*	*	*

* Not available.

(1) *Maternal Mortality Rate.*—Deaths from puerperal causes per 1,000 live births.

(2) *Gross Reproduction Rate.*—Represents the number of female children born on the average to women living right through the child-bearing years if the conditions on which the rate is based continue.

(3) *Net Reproduction Rate.*—Is the gross reproduction rate corrected for deaths of females from birth to the end of the child-bearing period. It is a more accurate index than the gross reproduction rate. Unless it exceeds unity the population is not replacing itself.

TABLE V

INFANT MORTALITY RATES (DEATHS UNDER ONE YEAR PER 1,000 LIVE BIRTHS)

——	1956	1957	1958	1959	1960	1961	1962
Commonwealth of Australia ..	21·7	21·4	20·5	21·5	20·2	19·5	20·4
Queensland	**22·7**	**21·7**	**19·4**	**20·3**	**21·0**	**20·0**	**21·1**
New South Wales	23·5	22·7	21·3	22·7	21·2	20·8	21·4
Victoria	19·3	20·2	19·2	21·2	18·5	17·8	18·5
South Australia	19·9	20·6	22·4	20·7	18·9	20·0	19·2
Western Australia	22·7	21·1	21·5	20·2	21·6	19·7	22·3
Tasmania	22·0	20·2	19·5	23·4	19·1	16·8	20·7
New Zealand	19·4	20·0	19·4	19·9	19·7	19·1	16·6[1]
United Kingdom	24·4	24·0	23·4	23·1	22·4	22·1	*
United States of America	26·0	26·3	27·1	26·4	25·7	*	*
Canada	31·9	30·9	30·2	28·4	*	*	*

* Not available

[1] Preliminary rate

The causes of death to residents of Queensland during 1962 are shown in Table VI.

TABLE VI

SHOWING CAUSES OF DEATH OF RESIDENTS OF QUEENSLAND, 1959–1962

Causes of Death	Males	Females	Total 1962	Persons		
				1961	1960	1959
Tuberculosis of Respiratory System	75	8	83	66	80	74
Tuberculosis, other	..	1	1	6	3	4
Diphtheria	..	..	..	1	1	..
Whooping Cough	..	..	..	1	..	1
Tetanus	2	4	6	10	13	13
Acute Poliomyelitis	4	1	5	2	..	..
Measles	2	1	3	3	1	3
Infectious Hepatitis	4	7	11	11	15	10
Other Infectious and Parasitic Diseases	35	15	50	40	55	59
Malignant Neoplasms	1,131	806	1,937	1,838	1,801	1,872
Neoplasms, Benign and Unspecified	14	20	34	42	28	39
Hay Fever and Asthma	22	24	46	60	55	58
Diabetes Mellitus	56	78	134	143	145	141
Other Allergic, Endocrine System, Metabolic, and Nutritional Diseases	15	13	28	32	34	40
Pernicious and other Hyperchromic Anæmias	6	6	12	14	9	7
Other Diseases of the Blood and Blood-forming Organs	21	14	35	43	45	38
Mental, Psychoneurotic and Personality Disorders	42	18	60	57	87	79
Vascular Lesions affecting the Central Nervous System	808	938	1,746	1,738	1,659	1,589
Other Diseases of the Nervous System and Sense Organs	106	72	178	143	174	203
Diseases of the Heart	2,582	1,597	4,159	3,950	3,784	3,618
Hypertensive Disease	176	160	336	400	467	497
Other Diseases of the Circulatory System	257	208	465	484	439	351
Influenza	8	10	18	22	16	92
Lobar-pneumonia	50	37	87	86	87	109
Broncho-pneumonia	132	81	213	202	188	155
Other and Unspecified Pneumonia	71	44	115	105	125	126
Bronchitis	218	41	259	206	189	185
Other Diseases of Respiratory System	76	50	126	138	115	181
Diseases of Stomach and Duodenum	66	31	97	112	113	99
Appendicitis	10	9	19	27	17	24
Diseases of Liver, Gallbladder, and Pancreas	81	59	140	117	123	116
Other Diseases of Digestive System	94	100	194	183	162	184
Nephritis and Nephrosis	108	73	181	215	219	210
Diseases of Male Genital Organs	58	..	58	68	69	102
Other Diseases of Genito-Urinary System	90	118	208	177	173	115
Deliveries and Complications of Pregnancy, Childbirth, and Puerperium	..	23	23	28	24	21
Diseases of the Skin and Cellular Tissue	9	12	21	22	21	26
Diseases of the Bones and Organs of Movement	22	22	44	46	49	40
Congenital Malformations	91	76	167	187	205	198
Intra-cranial and Spinal Injury at Birth	21	22	43	61	50	66
Other Birth Injury	27	19	46	39	60	40
Post-Natal Asphyxia and Atelectasis	63	38	101	78	75	68
Infections of Newborn	17	11	28	20	21	29
Immaturity Unqualified	70	61	131	141	140	118
Other Diseases Peculiar to Early Infancy	57	46	103	111	96	75
Senility without mention of Psychosis	86	128	214	192	122	123
Symptoms Referable to Systems or Organs	4	1	5	11	8	5
Ill-defined and Unknown Causes	18	3	21	29	26	24
Motor Vehicle Traffic Accidents	308	100	408	349	331	354
Accidental Falls	75	83	158	134	171	212
Accidental Drowning and Submersion	53	6	59	58	52	72
Other Accidents	220	56	276	246	239	254
Suicidal and Self-Inflicted Injury	178	83	261	232	172	197
Homicide and Injury Purposely Inflicted by Other Persons	20	9	29	20	17	33
Total from all Causes	7,759	5,423	13,182	12,756	12,370	12,349

DIVISION OF PUBLIC HEALTH SUPERVISION

Deputy Director-General of Health and Medical Services: D. W. JOHNSON, M.B., B.S., (Syd.), D.T.M. & H. (Syd.)

Senior Health Officer: P. R. PATRICK, M.B., B.S., (Q'ld.), D.P.H. (Syd.).

Health Officer: M. H. GABRIEL, M.B., B.S., (Qld.), D.P.H. (Syd.).

Chief Inspector of Food and Drugs: W. H. KELLY

Chief Sanitary Inspector: W. D. PRYOR

Secretary to Director-General of Health and Medical Services: R. WOODLEY

INSPECTORS IN CHARGE OF DISTRICT OFFICES

Townsville: H. P. LOWES
Toowoomba: W. J. SHIELDS
Mackay: R. A. BURKE
Cairns: W. T. JOHNSTON
Rockhampton: R. G. C. J. CUFFE
Bundaberg: C. V. JAMES

SECTION OF PRIVATE HOSPITALS

Private Hospitals

Private hospitals are licensed under the provisions of "The Private Hospitals Regulations, 1937," which are administered by this Department.

Table VII shows the numbers of licensed private hospitals in Queensland as at 30th June, 1963.

TABLE VII

LICENSED PRIVATE HOSPITALS IN QUEENSLAND AT 30TH JUNE, 1963

—	Number of Hospitals	Number of Beds
Metropolitan	21	792 and 11 Cots
Extra-metropolitan ..	36	1,031 and 17 Cots
Totals	57	1,823 and 28 Cots

There has been very little activity in this field during the year. Only one new license for a private hospital was issued, a small hospital of eight beds in a rural area, while one license was surrendered and the hospital ceased to function.

Approval was given for two metropolitan private hospitals with a combined bed capacity of 68 beds to surrender their licenses and to be re-licensed as convalescent homes.

Plans and specifications for additions and alterations to a number of private hospitals were approved, and a considerable number of special and routine inspections were carried out.

The standards of accommodation, facilities and care at all of the private hospitals visited were found to be generally satisfactory.

Convalescent Homes

For the past three years officers of this Department have been collecting information on a type of establishment catering largely for older persons requiring more care and supervision than is usually available in their homes and for others requiring a certain amount of medical and skilled nursing attention. This type of establishment has been known under a variety of names of which "convalescent home" appears to be the one most frequently used.

After considering the collected evidence it was felt that this type of home was a variety of hospitals involving the attendance of a doctor on the inmate and the application of some skilled nursing attention. It, therefore, appeared appropriate that the Director-General should have some control over the conduct of these homes.

The extra powers needed were given by an amendment of *"The Health Acts, 1937 to 1960,"* and allowed the Director-General to make regulations for the control, management, supervision, and regulation of convalescent homes. Regulations were drawn up and came into operation upon their publication in the *Government Gazette* of 30th March, 1963.

At that date, there were fifty-five (55) convalescent homes in operation in the State. They had all been licensed by the Local Authority in whose area they happened to be, the vast majority being within the Greater Brisbane Area. The local authorities had no specific by-laws to control convalescent homes, but had to class them as boarding houses and apply whatever other powers they possessed to ensure a reasonable standard of accommodation and management.

The Commonwealth Department of Health also exercised some control over these homes by virtue of the requirements imposed on the proprietors if the homes were to attract financial benefits under *"The National Health Act, 1953 to 1962."*

Notwithstanding the limited powers possessed by the Local Authorities and the Commonwealth Health Department, most homes were found to be of reasonably high standard, but failed to reach the standards required by the *"Convalescent Home Regulations of* 1963" in matters of detail rather than in any fundamental way. This is borne out by the fact that to date no application made by the proprietor of any existing home has been rejected outright because of any fundamental deficiency in the home.

TABLE VIII

SHOWING NUMBER OF CONVALESCENT HOMES AND BEDS AVAILABLE

Item	Number of Homes	Number of Beds
Convalescent Homes in operation at 30th March, 1963	55	..
Homes inspected by 30th June, 1963 ..	45	841
Applications received and inspection pending	7	137
Applications not received or not in required form	3	..
Homes opened and inspected since 30th March, 1963	2	49
Private Hospitals which have become Convalescent Homes since 30th March, 1963	2	111
Applications received and plans tentatively approved for proposed new homes since 30th March, 1963	10	380
Plans and proposals received for new building and additional beds in existing homes	7	113

From Table VIII it will be seen that at 30th June, 1963, 45 existing homes, 2 new homes, and 2 converted private hospitals had been dealt with and of these 49 homes, 26 admitted females only, 1 admitted males only, and 22 accepted inmates of both sexes. Between them, they had sufficient accommodation for 1,001 inmates. The average number of beds per home was 20·4, but individual homes ranged from 8 beds to 71 beds.

Of the 10 proposed new homes, 8 are to be for inmates of both sexes and 2 for females only.

SECTION OF EPIDEMIOLOGY

Tables IX and X show the reported incidence of notifiable diseases during the fiscal year, while Table XI shows the incidence of the same diseases for the calendar year 1962. During 1962-63, notifications totalled 2,972 (1,050 in Brisbane and 1,922 in country districts) compared with 2,957 (1,083 and 1,874) in the previous year. While the total notifications remained approximately the same, there were fluctuations in the notifications received for individual diseases. The main increases occurred in infantile diarrhoea (+62), leptospirosis (+15), malaria (+10), meningitis (+52), Q. fever (+134), rheumatic fever (+22), tuberculosis (+100) and typhoid and paratyphoid fevers (+11). Decreases occurred chiefly in the following:—Breast abscess (−12), infective hepatitis (−72), poliomyelitis (−258) and scarlet fever (−59).

Whilst variations in notifications received mean a variation in incidence in some diseases, in others this is not necessarily so. Poliomyelitis is noted for its periodicity and is also a disease in which it can be said that all cases are notified. The small number of cases notified this year would in this instance definitely mean a low incidence. On the other hand, the number of notifications of breast abscesses is not, it is felt, a true indication of this condition and the reduction of 47 cases to 35 means very little. This is one condition which is poorly notified. An increase in notifications is sometimes due to better case finding. The knowledge of the prevalence of communicable disease is of value to the practitioner and the Department has recently commenced preparing information on these diseases to be published monthly in the News bulletin of the Queensland Branch of the Australian Medical Association. However, this information can be as accurate only as the number of notifications received. It is therefore incumbent on the practitioner to notify cases when he diagnoses them.

TABLE IX

NOTIFIABLE DISEASES (EXCLUSIVE OF VENEREAL DISEASES) 1ST JULY, 1962, TO 30TH JUNE, 1963
METROPOLITAN AREA (POPULATION AT 31ST DECEMBER, 1962—642,000)

Diseases	Months												Totals 1962–63	Totals 1961–62
	1962						1963							
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June		
Ancylostomiasis	..	..	..	..	..	..	..	5	..	..	..	..	5	7
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Breast Abscess	..	..	1	..	..	..	..	2	1	1	..	..	5	12
Brucellosis	..	1	..	..	..	..	..	..	1	..	..	..	2	2
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dengue	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Diarrhoea (Infantile)	13	6	5	4	3	1	5	6	8	6	5	2	64	59
Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Dysentery (Amoebic)	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Dysentery (Bacillary)	..	..	..	..	..	..	..	..	1	4	9	..	14	22
Encephalitis	..	1	1	..	..	1	..	..	..	..	1	..	4	8
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Hepatitis (Infective)	16	9	17	17	27	22	24	44	49	32	39	51	347	361
Hydatid Disease	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Lead Poisoning	..	..	..	1	..	1	..	..	..	..	..	..	2	6
Leprosy	..	..	..	..	..	..	..	1	..	..	..	..	1	2
Leptospirosis	..	1	..	..	1	..	..	..	3	..	1	1	7	10
Malaria	1	1	6	5	2	3	..	3	2	1	1	..	25	24
Melioidosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	5	4	8	2	4	2	11	7	9	6	6	2	66	21
Neo-Natal Infections	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ornithosis (Psittacosis)	..	..	..	..	..	..	..	..	..	..	..	2	2	4
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis (Paralytic and Non-Paralytic)	..	..	..	1	..	..	1	..	..	..	..	1	3	150
Puerperal Infections	..	..	..	..	..	..	2	..	1	..	..	..	3	..
Q. Fever	1	1	3	2	1	..	3	3	28	..	3	16	61	15
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever	6	3	4	1	9	3	4	2	3	1	2	3	41	28
Rubella	..	..	2	5	3	..	2	..	2	..	1	1	16	16
Scarlet Fever	8	11	4	5	1	1	3	1	2	2	1	2	41	51
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taeniasis	..	..	..	..	..	1	..	..	..	..	1	..	2	1
Tetanus	..	..	..	..	..	..	2	..	..	..	1	2	5	4
Tuberculosis	22	18	26	29	29	14	17	23	25	35	40	44	322	268
Typhoid Fever (including Paratyphoid)	1	..	..	..	2	2	4	..	..	..	..	1	10	3
Typhus Fever—														
Epidemic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Murine	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Scrub	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tick	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	73	56	77	73	82	51	78	97	135	88	111	129	1,050	1,083

TABLE X

NOTIFIABLE DISEASES (EXCLUSIVE OF VENEREAL DISEASES) 1ST JULY, 1962, TO 30TH JUNE, 1963
EXTRA METROPOLITAN AREA (POPULATION AT 31ST DECEMBER, 1962—908,370)

Diseases	Months												Totals 1962–63	Totals 1961–62
	1962						1963							
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June		
Ancylostomiasis	2	4	..	2	10	23	1	8	4	..	..	..	54	34
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Breast Abscess	6	1	4	3	1	1	2	3	3	2	3	1	30	34
Brucellosis	..	..	..	1	3	1	..	3	..	..	..	..	8	5
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dengue	1	..	..	..	..	..	..	..	..	..	..	..	1	2
Diarrhoea (Infantile)	5	4	2	5	10	1	21	31	15	6	6	3	109	52
Diphtheria	..	..	..	..	1	..	..	..	..	..	..	..	1	2
Dysentery (Amoebic)	..	..	..	3	3	..	10	4	..	..	1	..	21	1
Dysentery (Bacillary)	2	3	..	2	2	2	8	3	1	..	1	..	24	12
Encephalitis	1	1	..	..	1	..	..	..	1	2	1	1	8	10
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hepatitis (Infective)	63	36	42	45	71	45	56	66	32	58	51	76	641	699
Hydatid Disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lead Poisoning	..	1	1	..	..	1	1	1	..	..	..	..	5	12
Leprosy	..	..	..	1	1	..	..	..	1	1	2	..	6	5
Leptospirosis	8	30	10	6	7	3	1	10	14	4	21	9	123	105
Malaria	1	1	1	1	5	2	3	5	2	1	4	3	29	20
Melioidosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	3	3	1	3	3	2	3	3	5	5	3	6	40	33
Neo-Natal Infections	..	..	2	1	..	..	..	2	1	1	..	..	7	2
Ornithosis (Psittacosis)	..	..	..	1	1	..	1	..	..	..	1	2	6	5
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis (Paralytic and Non-Paralytic)	1	..	1	..	1	..	1	..	..	..	..	1	5	116
Puerperal Infections	2	2	..	1	1	2	2	1	1	2	6	2	22	18
Q. Fever	2	14	2	11	9	2	5	4	47	21	14	42	173	85
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever	7	4	3	5	10	6	7	5	2	3	6	7	65	56
Rubella	..	..	..	..	..	..	..	..	1	..	..	4	5	25
Scarlet Fever	5	1	..	1	..	..	1	..	2	..	..	1	11	60
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taeniasis	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Tetanus	..	..	1	2	1	1	2	1	..	2	2	3	15	14
Tuberculosis	28	70	44	33	45	38	48	36	38	48	36	35	499	453
Typhoid Fever (including Paratyphoid)	..	..	..	..	..	1	3	..	..	..	..	..	4	..
Typhus Fever—														
Epidemic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Murine	..	1	..	1	2	..	..	..	..	..	..	..	4	5
Scrub	1	1	..	..	..	..	..	1	..	..	2	..	5	3
Tick	..	..	..	..	..	1	..	..	..	..	..	..	1	2
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	138	177	114	128	188	132	176	187	170	156	160	196	1,922	1,874

TABLE XI

NOTIFIED INCIDENCE OF COMMUNICABLE DISEASES IN QUEENSLAND (EXCLUSIVE OF VENEREAL DISEASE) SECTION 29 OF "THE HEALTH ACTS, 1937 TO 1962" DURING THE CALENDAR YEAR OF 1962

Diseases	Metropolitan Area	Outside Areas	Total for Queensland 1962	Total for Queensland 1961
Ancylostomiasis	6	60	66	40
Anthrax	..	..	..	..
Breast Abscess	5	38	43	33
Brucellosis	2	10	12	1
Cholera	..	..	..	..
Dengue	1	3	4	..
Diarrhoea (Infantile)	41	57	98	142
Diphtheria	2	2	4	4
Dysentery (Amoebic)	1	6	7	5
Dysentery (Bacillary)	8	20	28	40
Encephalitis	8	8	16	8
Filariasis	1	..	1	..
Hepatitis (Infective and Serum)	241	639	880	1,022
Hydatid Disease	..	..	..	..
Lead Poisoning	6	10	16	19
Leprosy	1	3	4	6
Leptospirosis	9	130	139	88
Malaria	34	21	55	32
Melioidosis	..	..	..	..
Meningitis	42	35	77	35
Neo-Natal Infections	..	4	4	1
Ornithosis (Psittacosis)	3	6	9	4
Plague	..	..	..	..
Poliomyelitis (Paralytic and Non-Paralytic)	74	64	138	154
Puerperal Infections	..	18	18	25
Q. Fever	15	84	99	131
Relapsing Fever	..	..	..	..
Rheumatic Fever	41	69	110	78
Rubella	14	2	16	38
Scarlet Fever	56	39	95	97
Smallpox	..	..	..	..
Taeniasis	1	1	2	4
Tetanus	2	11	13	33
Tuberculosis	288	533	821	679
Typhoid Fever (including paratyphoid)	8	1	9	5
Typhus Fever Epidemic	..	..	..	..
Murine	2	9	11	8
Scrub	..	2	2	4
Tick	..	2	2	1
Yellow Fever	..	..	..	..
Totals	912	1,887	2,799	2,737

Ascariasis

Ascariasis is not a notifiable disease, but infestation with this roundworm (Ascaris lumbricoides) is still present in members of our aboriginal population. In recent years, the presence of this infestation at Cherbourg Aboriginal Settlement was discovered by an officer of this Department during a Hookworm Survey. A heavy infestation of 20·5 per cent. was reduced by the help of Dr. Dorothea Sandars of the Queensland Institute of Medical Research. During the present year an officer of this Department visited Cherbourg and in two mass treatments over 1,000 inhabitants on the settlement were given piperazine citrate ("Antepar").

In March, 1963, the Superintendent of Princess Alexandra Hospital, advised that faecal specimens from two aboriginal children living at Victoria Point had shown ascaris infestation. At the same time the conditions under which the families from which these children came, were being investigated by the Senior Social Worker of the Department. As a result, the stools of 96 aboriginals, living either at Victoria Point or OPAL House, a hostel for aboriginals at South Brisbane, were examined. Of these, 15 were found by Dr. Sandars to be harbouring roundworms. Treatment was carried out with piperazine citrate ("Antepar") and piperazine phosphate and senna ("Pripsen").

Infantile Diarrhoea

Notified cases of infantile diarrhoea increased from 111 to 173, but no great significance can be attached to this. There is no doubt that each year many children under two years of age develop diarrhoea, but the cases are now quite mild as compared with the severe gastro-enteritis which was prevalent a few decades ago. During the summer months of the first quarter of the present century, severe epidemics of this nature were commonplace among the infant population. During the present year there was some increase in the cases notified from country areas in January, February and March, but on the whole the disease is no longer a worry.

Diphtheria

It is pleasing to report that only one case of diphtheria was notified during the year. This occurred in an eighteen months old unimmunised child from Thursday Island. This is certainly a change from the years when 2,000 or even 3,000 cases were notified as occurring in the years 1920 and 1921. During the last five years only 29 cases of diphtheria have been notified. This satisfactory state can only be maintained if the present high rate of immunisation against the disease is maintained.

Infective Hepatitis

With 988 notifications out of a total of 2,972 for all diseases, infective hepatitis was responsible for one-third of the communicable diseases reported. Throughout the year, the disease was reported from most areas of the State. When the disease occurs in a district, it moves slowly from one locality to another, due no doubt to the long incubation period. In the metropolitan area, the main pattern was for a few suburbs to be affected at a time, and cases were reported from these areas for several months. One interesting outbreak in the metropolitan area indicated that one method of spread is by way of contaminated food. Several cases of the disease occurred amongst employees of an industrial firm. The source of the infection was at first difficult to trace. Staff lunches were obtained from several cafes in the area and no case could be traced to them. Hygiene amongst employees was reasonable. Finally however, it was found that all employees had attended a Christmas function at which one of the food handlers came from a household in which a case of hepatitis was being nursed at the time. Further support for this being the common source of infection was given when outsiders invited by the firm to the function later developed the disease.

While cases were reported from all age groups, the majority of notifications came from ages between five and forty-nine years. Relatively few cases were notified from the 0–4 years group. In this group the disease is often in a latent form and not diagnosed. This, in addition to the long incubation period, makes investigation of outbreaks difficult.

Overseas reports indicate that the causative organism has been isolated and from this achievement it is hoped a vaccine will be developed. Until then the only recommendation regards prevention that can be made is rigid personal hygiene, particularly in regards to food handling and after using the toilet.

Table XII shows the distribution of 988 cases according to age groups.

TABLE XII

SHOWING AGE DISTRIBUTION OF 988 NOTIFIED PATIENTS WITH INFECTIVE HEPATITIS NOTIFIED DURING 1962–63

Age Group in Years	Number of Cases	Percentage of Total Cases
0–4	29	2·9
5–14	353	35·7
15–24	241	24·4
25–34	171	17·3
35–49	119	12·1
50 years and over ..	58	5·9
Not stated	17	1·7
Total	988	100·00

Leptospirosis

Table XIII sets out certain particulars concerning 130 cases of leptospirosis which were notified during the year. This disease occurs in association with animals and wet soil. The main occupations to provide cases were cane cutters (41 cases), dairy farmers (31) and meat workers (22). As can be expected, very few cases came from the Metropolitan Area, and these were in patients who worked at the abattoir. One person with an interesting occupation was a crocodile hunter. Most patients were males, only five being females. All of these latter lived on dairy farms.

TABLE XIII

SHOWING GEOGRAPHICAL LOCATION ACCORDING TO STATISTICAL DIVISIONS AND AGE GROUPS OF PATIENTS WITH LEPTOSPIROSIS NOTIFIED DURING 1962–63

Statistical Divisions	0–9	10–19	20–29	30–39	40–49	50–59	60–69	70 and over	Un-known	Totals	In Hos-pital	Not in Hos-pital	Males	Fe-males
Metropolitan	..	1	2	1	2	1	..	..	..	7	4	3	7	..
Moreton	..	5	4	3	3	2	1	..	..	18	10	8	15	3
Maryborough	..	5	1	..	4	2	..	..	..	12	10	2	11	1
Downs	..	2	2	..	1	..	..	..	..	5	2	3	5	..
Roma	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South Western	..	..	..	..	..	1	..	..	..	1	1	..	1	..
Rockhampton	..	1	3	3	..	..	..	..	..	7	5	2	7	..
Central Western	..	..	1	..	..	..	..	..	..	1	1	..	1	..
Far Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackay	1	1	2	..	2	1	..	..	..	7	7	..	6	1
Townsville	..	..	..	..	..	1	..	..	..	1	1	..	1	..
Cairns	..	13	31	15	4	6	..	..	1	70	62	8	70	..
Peninsula	..	..	1	..	..	..	..	..	..	1	1	..	1	..
North Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Outside Queensland	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	1	28	47	22	16	14	1	..	1	130	104	26	125	5

Malaria

Fifty-four cases of malaria were notified during the year. All cases had their origin outside Australia, most of them in New Guinea. Although there have been one or two cases in recent years in patients who have not left Australia, there has been virtually no malaria having origin in Queensland for 20 years when cases occurred in Cairns during the Second World War.

Meningitis

Prior to 1960, the only type of meningitis notifiable was that due to the meningococcus. From that year on, all forms have been notifiable. During 1962–63 the total number of cases reported was 106, as against 54 in the previous year. Only 6 of the cases notified were stated to be due to the meningococcus, although in 33 cases, no organism was stated as being the cause. By far the greatest group was that diagnosed as aseptic meningitis, there being 46 notifications in this group. There were 15 cases of influenzal and 5 cases of pneumococcal meningitis.

In keeping with the characteristics of the disease, the bulk of the cases came from children. Approximately 60 per cent. of the cases came from the 0–4 years age group and over 80 per cent. of the cases were less than 10 years of age. The disease, which once had a high mortality rate, is now in most cases amenable to treatment with modern drugs.

Poliomyelitis

All cases of poliomyelitis notified are at present assessed by a surveillance committee set up by the National Health and Medical Research Council. From all notified cases, faecal and serum samples are obtained. Faeces are examined by the Queensland Institute of Medical Research for entero-viruses and if positive these are forwarded to the Commonwealth Serum Laboratories in Melbourne for typing. Serum samples are tested for poliomyelitis antibody levels. Where possible samples are taken in the acute and convalescent stages of the disease. A rise in antibody titre from the first to the second stage is indicative of infection with the virus. In addition a clinical report is forwarded to the committee. From the complete information a decision is made as to whether the case should be confirmed.

During the year 8 cases of poliomyelitis were notified. Decisions regarding all these notifications have been received from the surveillance committee. Only one case has been confirmed by the committee. During the previous year, 160 cases were confirmed.

Salk Vaccination Campaign

Previous to the 1961–62 poliomyelitis epidemic in Queensland, three injections of Salk vaccine manufactured by the Commonwealth Serum Laboratories, given at the recommended intervals of four weeks between first and second doses and 28 weeks between second and third doses were regarded as giving adequate protection against poliomyelitis. Serum antibody levels for type-3 after three injections were not as high as those produced by the type-1 and type-2 components but no field experience had shown it to be inadequate until the 1961–62 epidemic produced cases in persons who had three injections. Despite this, an analysis of cases in the vaccinated and non-vaccinated showed that the crude protection rate in those persons who had received three injections was approximately 80 per cent. for all age groups. When it was shown that three injections did not always give sufficient protection, representations were made by this State to the National Health and Medical Research Council for approval to give a fourth dose. It was decided that this should be given 12 months or more after the third injection. All Local Authorities throughout the State agreed to carry out the proposal and vaccine for a fourth injection was made available to private practitioners as well. The response was reasonable in the pre-school and school age group, but poor in adults.

Table XIV shows the number of injections for the year for which returns had been received at the end of June. The actual numbers are no doubt higher as private practitioners who administer Salk vaccine in addition to Local Authorities are in some instances rather slow in forwarding returns.

TABLE XIV

SHOWING NUMBER OF SALK VACCINE INJECTIONS GIVEN DURING THE YEAR AND THE PERCENTAGE OF PEOPLE WHO HAVE HAD FOUR INJECTIONS

Age Group in Years	First	Second	Third	Fourth	Population	Percentage of Total Population who have received Four Injections
0–4	27,831	24,997	35,041	44,986	91,027	Per cent. 49
5–14	3,395	3,569	8,533	188,444	308,489	61
15 years and over	18,320	19,066	47,358	134,994	707,409	19

NOTES—

1. 91,027 is the population from 2¼ years to 4 years. Under the recommended schedule, a child must be at least 2¼ years before he may receive a fourth injection.
2. The population given is that for the 15–49 age groups. Very few people over this age group received any injections.

Q. Fever

A study of Table XV, which sets out details of the 234 Q. Fever cases notified during the year will show that the statistical divisions which provided the most cases were Metropolitan (61), Moreton (52) and Cairns (33). It is in these areas that abattoirs are situated. Of all the cases notified, 111 came from persons associated with the meat industry. Most of these were patients who actually handled meat after slaughtering. There were a few cases in tradesmen, such as electricians and carpenters attached to the abattoirs. The wool industry was responsible for 29 cases. Most of these were shearers, but wool classers and graziers were included in patients notified. Another group of cases came from dairy farmers. The seven female cases were wives of dairy farmers.

TABLE XV

SHOWING DETAILS OF GEOGRAPHIC AND AGE DISTRIBUTION OF 234 CASES OF Q. FEVER NOTIFIED DURING 1962–63

Statistical Divisions	0–9	10–19	20–29	30–39	40–49	50–59	60–69	70 and over	Un-known	Totals	In Hos-pital	Not in Hos-pital	Males	Fe-males
Metropolitan	1	19	15	11	8	7	..	..	..	61	38	23	60	1
Moreton	1	15	9	14	7	4	..	..	2	52	34	18	51	1
Maryborough	..	1	1	1	7	2	1	..	..	13	10	3	11	2
Downs	..	3	1	5	2	1	..	..	1	13	8	5	12	1
Roma	..	2	5	2	..	4	1	..	1	15	7	8	15	..
South Western	..	..	6	4	3	..	1	..	..	14	8	6	13	1
Rockhampton	..	1	1	1	..	..	..	..	..	3	3	..	3	..
Central Western	..	2	1	3	1	..	..	..	..	7	5	2	7	..
Far Western	..	1	2	1	..	..	..	..	..	4	2	2	4	..
Mackay	..	..	..	..	1	1	..	..	..	2	2	..	2	..
Townsville	1	5	1	6	1	..	..	..	..	14	12	2	14	..
Cairns	1	8	5	6	7	2	1	1	3	34	19	15	33	1
Peninsula	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Western	..	..	..	2	..	..	..	..	..	2	..	2	2	..
Outside Queensland	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	4	57	47	56	37	21	4	1	7	234	148	86	227	7

Tetanus

It is disturbing to see cases of a disease occurring when the means of prevention is available. Twenty cases of tetanus for the whole State may not seem many, but most, if not all, could have been prevented by immunisation for the prophylactic agents available are extremely effective in preventing this disease. One satisfactory aspect however, is that very few cases are reported in children. Of the 20 cases notified, only two were under 15 years. Both of these were not immunised. This demonstrates the value of triple antigen which is now being used almost routinely as an immunisation agent in this State. Prior to its use the distribution of cases was approximately half in children and half in adults. An analysis of adult cases reported reveals a number of cases which followed trivial injuries. Wounds caused by splinters and prickles initiated the onset in some instances. One interesting case notified followed a fractured nose.

SECTION OF AIR POLLUTION

Beyond routine testing of samples of dust and soot, no specific work on air pollution control was carried out during the year.

This was due to the absence of any power to control air pollution. However, the Department of Labour and Industry requested advice on the desirability of installing air pollution control equipment on the two oil refineries to be erected at the mouth of the Brisbane River.

In each case agreement was reached that the company concerned would install and operate modern equipment to reduce the discharge of harmful or noxious material into the air.

The Director of the Government Chemical Laboratory, during a recent overseas tour, investigated apparatus for carrying out surveys and for identifying particular polluting substances in the area.

Approval was obtained for the purchase of this equipment and it should all be delivered in the new financial year.

HANSEN'S DISEASE

(1) HANSEN'S DISEASE IN THE WHITE POPULATION

Medical Supervision: M. H. Gabriel, B.Sc., M.B., B.S.(Q'ld.), D.P.H.(Sydney), A.R.A.C.I.,
Health Officer, Health and Medical Section

This has been an interesting year since it has seen a marked increase in interest by the medical practitioners of the State in Hansen's disease. There appears to be a growing awareness that the diagnosis of Hansen's disease should be considered in patients exhibiting vague neurological and/or dermatological signs and symptoms. This has resulted in an increasing number of submissions of specimens for examination and in the largest number of admissions for many years.

TABLE XVI

Comparison of Statistics for the Financial Years 1960–61–62–63

—	1960–61			1961–62			1962–63		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals
Population at 1st July ..	3	3	6	3	3	6	3	4	7
Admitted	2	..	2	2	2	4	7	..	7
Discharged	1	..	1	..	..	..	1	..	1
Allowed Home Isolation ..	1	..	1	2	1	3	..	1	1
Died	..	..	..	..	..	..	1	1	2
Population at 30th June ..	3	3	*6	3	4	*7	8	2	*10

* These totals include three patients given special permission to remain in hospital although eligible for discharge.

ADMISSIONS

Six male patients were admitted for the first time and one male patient was re-admitted during the year. This is the largest number of admissions in a single year since 1958–59 when a similar number was admitted. In every case the disease has been present for a number of years without its true nature becoming apparent or being recognised.

This increase in admissions is not regarded as indicating any increase in the disease in Queensland but rather an increasing vigilance and awareness on the part of examining physicians.

All of the newly admitted patients are progressing favourably under treatment.

RELEASES

One male patient was discharged with the disease arrested and one female patient was allowed home isolation and has continued to make good progress at home.

DEATHS

Two patients died during the year. One male patient suffered a severe broncho-pneumonia which appeared to respond to treatment but an acute relapse resulted in death. A post-mortem examination confirmed broncho-pneumonia as the cause of death. The other death occurred in a female patient of 63 years in whom Hansen's disease had been arrested for some time. She had been retained in hospital because she was suffering from an abdominal malignant condition which eventually caused her death.

DRUG TREATMENT

No radical changes have been made in drug treatment during the year. The standard procedure in treatment which has been adopted is to commence with dapsone at 100 milligrams twice a week gradually increasing to 400 milligrams twice a week in the tenth and subsequent weeks. Provided that this is well tolerated, diethyl dithiolisophthalate lotion or ointment is added to the treatment after about the fifteenth week and continued in courses of 12 weeks on this drug and a 12 weeks rest pause. After about the twentieth week of treatment (sometimes earlier) methimazole is also added to the treatment at the rate of 10 milligrams a day, gradually increasing to 30 milligrams in the fourth or fifth week, maintained at this dosage for 4 or 5 weeks then dropped to 15 milligrams a day. A close watch has to be kept on the blood picture and for any signs of thyroid enlargement and hypothyroidism.

This schedule of treatment has given very promising results in the admittedly small series of cases available for such trials in Queensland.

GENERAL

Since August, 1959, all white patients have been accommodated in an annexe at Princess Alexandra Hospital, South Brisbane. The association of this annexe with a public hospital has afforded the opportunity to offer a specialised out-patient service to patients discharged from the annexe but still under home isolation or surveillance, to suspected cases under prophylactic treatment and even to arrested cases of long standing. Increasing use is being made of this out-patient service each year and at each session an average of ten outpatients attend. This is occupying a considerable proportion of the time spent at the annexe by the visiting health officer. Occasionally also, if a bed is available, a discharged patient can be temporarily re-admitted for some special treatment or investigation.

Hansen's disease is endemic in some areas of Queensland and from the number of smears and biopsies forwarded it is obvious the doctors in the area are on the look-out for this disease. This probably accounts for the increase in the number of new admissions to hospital.

The Handcraft Section of the Red Cross Society continues to take an active interest in the patients at the annexe and to provide materials, equipment and instruction.

The Health Officer attended a conference in Sydney in January, 1963, at which officers from all states in which Hansen's disease occurs collaborated to produce a report for the information of the Tropical Medicine Section of the National Health and Medical Research Council. The report outlined the present position with regard to the incidence and management of the disease in Australia and offered suggestions for the framing of future policy with regard to its management.

(2) HANSEN'S DISEASE IN THE COLOURED POPULATION

The following table shows the population changes during the year at Fantome Island Hospital where coloured patients with Hansen's Disease are cared for:—

TABLE XVII

——	Males	Females	Total
Patients at 1st July, 1962 ..	8	3	11
Admitted	8	2	10
Discharged	3	1	4
Died	2	..	2
Patients at 30th June, 1963 ..	11	4	15

The ten admissions this year is the largest number for many years. The two females and two of the males were admitted for the first time but the remaining six males were all re-admissions. One of them was in very poor condition and died a month after admission. The other death occurred in an aged patient in whom drug treatment had not greatly influenced the course of the disease even after very prolonged and varied treatment.

There does not appear to be any special circumstance which might account for so many re-admissions occurring in one year but the fact that they have occurred underlines the need for continuing surveillance of discharged patients and for strict attention to maintenance drug treatment, the latter often being rather neglected by a section of the coloured population.

The nursing and general supervision of patients continues in the capable hands of the Franciscan Missionaries of Mary, and medical supervision is maintained by medical officers of the Townsville Hospital stationed at the Palm Island Hospital annexe. Specialist and other treatment is available at Townsville Base Hospital and patients are transferred from Fantome Island Hospital as required.

SECTION OF ENTHETIC DISEASES

Medical Officer in Charge: GEOFFREY HAYES, M.B., Ch.M. (Syd.)

There were 1,473 cases of venereal disease notified for the 1962-63 fiscal year. This compares with 1,525 cases in the previous year and represents an incidence of 0·949 per thousand population as compared with 0·999 for the previous year.

This slight fall is the first suggestion of any downward trend since the incidence of 0·506/1000 in 1951-52, the graph having steadily risen since then.

However, an analysis of the figures shows that whereas male notifications have fallen by 117 cases—female cases have risen by 65, and this must dampen any optimism as it is the reservoir of female disease which could well give rise to a resurgence of infections.

Table XVIII dissects the incidence of notified venereal disease in Queensland:

TABLE XVIII

NOTIFIED VENEREAL DISEASES IN QUEENSLAND, 1962–63

——	Metropolitan		Outside Centres		Whole State		Total
	Males	Females	Males	Females	Males	Females	
Gonorrhoea—							
Unspecified	..	..	..	..	..	..	..
Acute	810	154	244	85	1,054	239	1,293
Sub-acute	1	..	7	12	8	12	20
Chronic	..	4	2	34	2	38	40
Ophthalmia	..	..	..	..	..	..	..
Vulvo-vaginitis	..	2	..	..	..	2	2
	811	160	253	131	1,064	291	1,355
Syphilis—							
Unspecified	..	..	..	..	..	..	..
Primary	18	8	6	5	24	13	37
Secondary	1	7	1	1	2	8	10
Tertiary	2	1	4	1	6	2	8
Latent	10	..	1	3	11	3	14
Neuro	..	..	..	..	..	..	..
Pre-natal (congenital)	..	..	..	..	..	..	..
	31	16	12	10	43	26	69
Soft sore	5	..	..	..	5	..	5
Venereal warts	42	..	..	..	42	..	42
Ulcerative granuloma	..	..	1	1	1	1	2
	889	176	266	142	1,155	318	1,473
	1,065		408		1,473		
	1,473						

Table XIX shows centres from which notifications were received in the various areas of the State outside Brisbane and shows the northern seaports and the industrial centre of Mt. Isa to be the main centres supplying notification figures:

TABLE XIX

CENTRES OF NOTIFICATION OF VENEREAL DISEASE OUTSIDE METROPOLIS

Centre	Males	Females	Total
Aramac	1	..	1
Atherton	4	..	4
Ayr	1	..	1
Babinda	3	..	3
Baralaba	2	1	3
Beaudesert	1	..	1
Biloela	1	..	1
Bundaberg	1	..	1
Cairns	47	7	54
Charleville	2	1	3
Cleveland	1	..	1
Cloncurry	3	..	3
Cooktown	3	..	3
Dalby	4	..	4
Edmonton	3	..	3
Emerald	1	..	1
Gordonvale	7	..	7
Gympie	1	..	1
Hughenden	2	..	2
Innisfail	4	..	4
Ipswich	1	1	2
Longreach	4	..	4
Mackay	11	1	12
Mareeba	7	3	10
Maryborough	1	3	4
Mitchell	1	..	1
Mossman	1	..	1
Mount Isa	15	3	18
Mount Morgan	2	2	4
Nambour	1	..	1
Proserpine	3	1	4
Quilpie	1	1	2
Redcliffe	1	..	1
Rockhampton	12	2	14
Roma	4	..	4
Silkstone	2	..	2
Southport	14	5	19
Stanthorpe	1	1	2
St. George	2	1	3
Thursday Island	50	99	149
Toowoomba	8	..	8
Torquay	1	..	1
Townsville	23	4	27
Warwick	5	2	7
Winton	2	4	6
Woorabinda	1	..	1
	266	142	408
	408		

Table XX shows the varying incidence for the past 20 years (1942-43 representing the peak war year period):

TABLE XX

SHOWING NUMBER OF NOTIFICATIONS OF VENEREAL DISEASES FOR PAST 20 YEARS

Fiscal Year	Notifications	Mean Population	Incidence per 1,000 Population
1942–43	3,101	1,040,433	2·98
1943–44	2,718	1,054,810	2·576
1944–45	2,391	1,068,630	2·24
1945–46	1,309	1,084,125	1·207
1946–47	1,373	1,097,303	1·251
1947–48	1,000	1,114,634	·897
1948–49	846	1,140,816	·742
1949–50	731	1,173,232	·623
1950–51	626	1,207,194	·519
1951–52	627	1,239,868	·506
1952–53	757	1,272,244	·595
1953–54	740	1,300,464	·569
1954–55	741	1,328,064	·558
1955–56	807	1,360,801	·593
1956–57	995	1,394,088	·714
1957–58	1,018	1,422,349	·716
1958–59	965	1,405,535	·665
1959–60	1,021	1,478,129	·691
1960–61	1,436	1,503,703	·955
1961–62	1,525	1,526,959	·999
1962–63	1,473	*1,551,500	·949

*Subject to Revision.

Tables XXI, XXII, and XXIII show the alleged sources of infection, marital status, and age group of notified cases.

TABLE XXI

ALLEGED SOURCES OF INFECTION

Non-professional	1,127
Unknown	247
Not Stated	..
Professional	92
Husband	1
Wife	6
Total	1,473

TABLE XXII

MARITAL STATUS OF PATIENTS

—	Males	Females	Total
Single	978	216	1,194
Married	137	77	214
Separated	6	10	16
Widowed	31	12	43
Divorced	3	2	5
Total	1,155	318	1,473

TABLE XXIII

SHOWING AGE GROUP OF NOTIFIED CASES

Age Group	Males	Females	Total
Under 1 year	..	..	..
1– 4 years	..	1	1
5– 9 years	..	1	1
10–14 years	2	6	8
15–19 years	276	122	398
20–24 years	402	88	490
25–29 years	200	37	237
30–34 years	105	25	130
35–39 years	67	16	83
40–44 years	37	10	47
45–49 years	31	3	34
50–54 years	14	6	20
55–59 years	4	1	5
60–64 years	7	..	7
Over 65 years	6	..	6
Unknown	4	2	6
Total	1,155	318	1,473

It will be noted that the teen-age group 15-19 years is the second largest group of all age groups, but if the 20-year olds are also included by grouping the 16-20 five-year period then their group is well ahead of all others and is in line with the known facts of incidence of sexual promiscuity as evidenced by increase of sexual offences coming before the courts and by the big increase of extra-nuptial pregnancies in the 20-and-under age group.

Table XXIV shows the sources from whence notifications were received—13·4 per cent. coming from private practitioners as compared with 14·2 per cent. last year.

TABLE XXIV

SHOWING SOURCES OF NOTIFICATION

—	Males	Females	Total
Private Doctors—			
Brisbane	65	11	76
Outside Centres	104	17	121
Total	169	28	197
Clinics—			
Brisbane	770	157	927
Outside Centres	21	5	26
Total	791	162	953
Hospitals—			
Brisbane	54	8	62
Outside Centres	141	120	261
Total	195	128	323
Total All Sources	1,155	318	1,473
	1,473		

AD HOC VENEREAL DISEASES CLINICS

Male Clinic—Colchester Street, South Brisbane.
Female Clinic—William Street, Brisbane.

Male Clinic

The following figures summarise some of the main activities of this Clinic. The main "project" for the year was an endeavour to ascertain the extent of *trichomonas* infections in the male but so far without any worthwhile conclusions. Only one male case was demonstrated in 100 consecutive non-specific urethritis infections whereas the infection is relatively common in females as can be seen from the figures for the William Street Clinic. However, no hard and fast conclusions can be drawn from these findings.

TABLE XXV

Male Clinic, 1962–63

New Cases—		
Total for the year		1,568
Highest Month—January		192
Lowest Month—June		87
(Average per month)		130·6
Visits—		
Total for the year		11,829
Highest Month—January		1,175
Lowest Month—June		716
(Average per month)		985·75
Notifications—		
Early Syphilis—		
Primary	14	
Secondary	1	
Latent	0	
		15
Late Syphilis—		
Late Latent		10
Acute Gonorrhoea		698
Venereal Warts		42
Soft Sore		5
Total Notifications		770
Injections—		
Penicillin		1,598
Streptomycin		168
Total		1,766
Investigations—		
Dark Ground Tests		20
Smears Examined at Clinic		4,028
Smears Submitted to Laboratory		1,250
Blood Tests Submitted to Laboratory		2,231
Urine Tests Submitted to Laboratory		248
Total		7,777
Prophylactic Treatments		843
Letters to Defaulters		243

TABLE XXVI

Women's Clinic, William Street, 1962–63

Notifications

—	Women's Clinic	H.M. Prison	Total
Gonorrhoea—			
Acute	125	19	144
Chronic	2	1	3
Treated	1	..	1
	128	20	148
Syphilis—			
Primary	1	..	1
Secondary	2	..	2
Early Secondary	2	..	2
Treated	3	1	4
	8	1	9
Total	136	21	157

TABLE XXVII

Other Activities

—	Women's Clinic	H.M. Prison
Total Interviews	891	..
New Cases	305	..
Penicillin Injections	242	35
Smears taken	1,009	456
Bloods taken	327	102
Patients cultured	432	..
Cultures taken	862	..
Dark Ground	9	..
Trichomonas	74	29
Monilia	19	4
Prisoners examined	..	228

The resurgence of venereal disease, particularly gonorrhoea, over the past decade calls for some comment. The most alarming feature of this increase has been its greater incidence in the 20-and-under age group and particularly the fact that young girls form such an increasing percentage in this range.

Health education is being undertaken in regard to venereal disease but the best health education is general education. This will be achieved to some degree when the school leaving age is extended but every encouragement should be given to children to continue with secondary and tertiary education. This, of course, will not solve all the problem but far too many children leave school at 14 attracted by high wages and the pursuit of pleasure with the inevitable consequences.

SECTION OF FOOD AND DRUGS

This section administers the food and drug sections of the Health Acts, together with the Food and Drug Regulations, the Milksellers Regulations, the Health (Food Supply) Regulations, the Poisons Regulations, the Health (Insecticide) Regulations, the Dispensary Regulations, and the Dangerous Substances Regulations. The wide field of work involved in the implementation of this legislation has necessitated a very busy and active year by the staff.

FOOD

The very important food, milk, received very close attention by the staff in all parts of the State and it is pleasing to report that generally the milk sold to the public is of very good quality. A vigorous sampling campaign of both pasteurised and raw milk was continued throughout the year and details of the numbers of samples obtained for chemical analysis may be seen in the report of the Director of the Government Chemical Laboratory, whilst the Director of the Laboratory of Microbiology and Pathology has included in his annual report all particulars of the numerous samples of milk submitted for bacteriological analysis. As a result of sampling operations, five successful prosecutions for the sale of adulterated milk were launched, resulting in £57 in fines and £34 10s. costs of court.

Pasteurising factories, and other premises for the bottling of milk (other than pasteurised milk) received regular inspection by the staff and it is worthy of note that a high standard of premises obtains and that efficiency at these premises is of a high order. Our thanks are due to local authorities in outlying areas for the regular remission of samples of milk from bottling plants, whilst this report would be incomplete without reference to the co-operation enjoyed by this Department with factory management and personnel. Vehicles used in the delivery of milk for sale received regular inspection and, where necessary, the desired improvement was generally forthcoming. Unco-operative vendors were successfully prosecuted in respect of six breaches, fines totalling £32 and costs of court £7 4s.

Another staple item of the public diet, viz., bread, had particular attention during the year and a large number of samples were obtained for analysis. Where breads were found not to standard or below fair average quality, corrective steps were taken with the offending baker. At the same time, regular samples of flour were obtained from the flour mills for analysis. Details of these samplings may be seen in the report of the Director of the Government Chemical Laboratory.

There has been no relaxation in the campaign to ensure compliance with the standards for minced meat, sausage meat, and sausages and it is a matter of regret that, despite the vigour of the campaign, offenders still are found. During the year 50 butchers were successfully prosecuted for the breach of selling minced meat adulterated with preservative, the Magistrates inflicting fines of £532 and costs of court amounting to £193 19s. The highest adulteration was at the rate of 20·7 grains of sulphur dioxide to the pound, whilst the average adulteration was at the rate of 5·2 grains to the pound.

The quality of sausages on the market was not overlooked and a considerable number of samples of sausages was obtained during the year under review. As a result of the staff's activities, 16 butchers were successfully prosecuted for selling sausages adulterated with excess preservative and were fined a total of £226 and ordered to pay £57 in costs. It is interesting to note that, during the year, one butcher was fined £50 for his third offence in this regard.

Liquor testing at hotels and other licensed premises also received attention during the year. As a result of testing operations, two successful prosecutions for adulterated liquor were undertaken, resulting in the securing of £35 in fines and £6 12s. in costs. Other cases for similar breaches are pending.

Glasswashing facilities at licensed premises received constant attention from the staff, whilst officers policed the "clean glass" regulation at every opportunity. Although a good measure of co-operation was obtained from licensees, it was found necessary to take legal action with persistent offenders. As a result, 10 successful prosecutions for offences in regard to glasses and glasswashing machines were undertaken, with fines of £48 and costs of £12.

Soft drinks came regularly under review and a large number of samples were obtained by the staff and submitted for analysis, to determine compliance with standards and with labelling requirements. Corrective action in respect of samples, which offended, was undertaken with general success, although one manufacturer was fined £1 and ordered to pay £7 10s. costs of court in respect of excess caffeine in his product. A continual campaign in respect of soft drinks would seem to be paying off, as it was found that the description of soft drinks and their quality were generally excellent.

The quality of ice cream, flavoured ices, and ice blocks also received attention and a full range of samples for both chemical and bacteriological analysis was obtained with generally satisfactory results.

It is interesting to note that during the year, a consignment of mandarins with artificially coloured skins was withheld from sale, because the fact of their having been artificially coloured was not declared on the skins. The action apparently had the desired salutary effect, as no more such offending fruit came under notice.

The position with regard to pesticidal residues on fruit and vegetables has also been kept under continuous surveillance.

Departmental officers continued their work of the supervision of food factories and secured a large measure of necessary improvements. It is pleasing to report a steady improvement in the standard of food premises over the past few years.

Officers provided the usual coverage of sales of food at showgrounds and similar premises during the year and again it is worthy of note that a marked improvement in the general standard of food premises at such grounds has been obtained.

The staff at the South Brisbane Fish Market provided its usual efficient inspection of fish offered for wholesale sale, and of fish and other marine products at the retail sale level. As a result of its activities a total of 53 tons and 16 cwt. of fish was condemned and destroyed, as were also 8 tons and 14 cwt. of prawns, 1,457 crabs, 4 bags of oysters, 28 lobsters, and 8 rabbits.

Officers in district centres again provided their usual liaison with depots of the Fish Board and were responsible for the condemnation and destruction of over 15½ cwt. of unsound fish and prawns.

Checking of foods for compliance with prescribed standards and labelling requirements was a continual feature of the year's work and nearly 1,700 of such check samples were obtained and submitted for analysis. The report of the Director of the Government Chemical Laboratory will indicate the wide variety of the samples. All necessary corrective action was taken. Bacteriological standards were not overlooked and, as a result of the staff's activities, over 300 check samples were submitted, details of which may be seen in the report of the Director of the Laboratory of Microbiology and Pathology.

As may be expected in a department intimately connected with the public welfare, numerous complaints were received and all complaints were promptly and effectively dealt with.

Officers during the course of their inspections, paid particular attention to the quality and condition of food for sale and, as a result of their activities, approximately 20 tons and 13 cwt. of food of various kinds were found unsound and destroyed, together with 1,200 cigarettes, 45 gallons of cordials and soft drinks, 72 bottles of sauce and 504 tins of mixed foods of unspecified weights. In addition, a large quantity of fire-damaged stock, the result of a fire in a country store, was inspected and found unsuitable for human consumption and was destroyed by mutual consent.

Constant liaison has been maintained with sister departments, especially the Department of Agriculture and Stock and Department of Weights and Measures, for assistance for which this section is grateful, whilst our usual happy relations with the Brisbane Milk Board were maintained.

During the year, the Chief Inspector attended interstate conferences on uniformity of food standards and labelling requirements and, as a result of decisions reached at those conferences, major amendments to our Food and Drug Regulations may be anticipated in the near future. The value of such uniformity to the public, the trade and administration is expected to be very considerable.

POISONS AND DRUGS

Again a busy year has been experienced by the staff in the implementation of the relevant legislation. Advances by the chemical industry cause an ever-increasing flow of new drugs and poisons on to the market and the work of control by this section increases in proportion. Continual inspections have been made of all avenues of distribution of poisons and drugs both in the wholesale and the retail fields and all necessary corrective steps taken. Apart from the wholesalers and licensed poisons dealers, regular inspections have been made at pharmacies in respect of transactions in drugs, especially dangerous drugs, whilst similar work has been carried out with professional men, authorised to obtain and use dangerous drugs. Hospitals, institutions and convalescent homes have not been overlooked and they have received their share of inspections.

Labelling of poisons and drugs is of vital importance to the purchaser and the user, and it is the intention of the legislation that the cautionary and descriptive labelling on drugs should be such that the purchaser and the user are made well aware of the potency and any hazard attendant on their use. Consequently, this phase of the work received a great deal of attention and it is pleasing to report a steady progress in compliance by packers. Possibly the biggest hurdle in securing a full compliance was the fact that this State was, until this year, the only State which had adopted the eight schedules principle of the Uniform Poisons Schedules Committee. However, with the adoption this year by other States of this principle, we can hopefully look forward to a big acceleration in the rate of compliance.

The Chief Inspector has visited the South several times during this year on conferences for the allocation of drugs and poisons to their respective schedules. Such securing of uniformity must be of great benefit to both trade and administration and it is now becoming increasingly apparent that there will be little variation in the schedules of the various States, when they finally settle down.

An interesting amendment to the Poisons Regulations was the defining of a "new drug" and its allocation to a restricted schedule until it is properly evaluated. To that end, the amendment requires the submission of complete chemical, clinical and pharmacological details of all new drugs. Somewhat similar requirements are also provided for poisons.

It is pleasing to report that the professions and the trades extend a large measure of co-operation to the department with the result that our control of drugs and poisons with a limited staff might be considered very satisfactory. However, it has been found necessary to prosecute several consistent offenders for failure to comply with regulations, necessary for proper control, and as a result 9 successful prosecutions were launched, resulting in the securing of £66 in fines and £12 18s. in costs.

DISPENSARY REGULATIONS

We have now completed our first full year of the operation of these Regulations. At first inability to secure certain equipment militated against a full compliance with the requirements of the Regulations, whilst certain items were held in abeyance pending further discussions. However, most of these problems have now been overcome and it is pleasing to report a good measure of compliance by dispensaries, both at pharmacy premises and hospitals. It is confidently anticipated that the high standard of premises and equipment aimed at by the department with these regulations will be attained during the coming year. When that occurs, the standard of dispensaries in Queensland will be as high as anywhere in Australia.

DANGEROUS SUBSTANCES REGULATIONS

It is pleasing to report that, after the first full year of the operation of these Regulations, most of the early problems of implementation have been overcome. There has been a very reasonable acceptance by the trade and compliance has been generally good. It is considered that the purpose of these Regulations will be vindicated by an appreciable diminution in the number of home accidents through children swallowing such substances.

Serious opposition to this legislation was encountered from a large Southern manufacturer, whose appeal to the High Court of Australia was heard during the year under review. The decision of this Court was in favour of this department and thus the Regulations were vindicated. However, some minor anomalies became evident during the arguments and it is proposed to re-gazette these Regulations. To that end a set of regulations has been prepared to overcome defects in the original regulations and these will be submitted for consideration in the near future.

It is refreshing to note that the whole question of dangerous or hazardous household substances is receiving the attention of the National Health and Medical Research Council through its relevant committees and it is hoped that, during the coming year, big steps will be made towards securing uniformity between all States in their control of these substances.

Although in general the co-operation of the trade has been secured in complying with these Regulations, it was found necessary during the year to prosecute two persistent offenders, resulting in total fines of £16 with £9 costs of court.

SECTION OF ENVIRONMENTAL SANITATION

The Director-General is, subject to the Minister, charged with the administration of the Health Acts, by which the Local Authorities are primarily responsible for environmental sanitation. Departmental officers have a supervisory role in this sphere and Local Authorities employ health inspectors. At 30th June, the distribution of health inspectors was as follows:—

Brisbane City Council	40
Cities and Towns	51
Shires (not in joint areas)	40
Joint Areas (more than one Local Authority)	25
Total	156

NIGHTSOIL REMOVAL AND DISPOSAL

The water carriage of nightsoil is progressively increasing throughout the State, by the reticulation of sewers connected to sewage treatment plants or by the installation of individual septic tanks. Several schemes are under construction and the possibility of sewerage is being investigated in other areas.

But there are still many parts of the State dependent on the pan system for the collection, removal, and disposal of nightsoil. This essential service is reasonably well performed.

REFUSE COLLECTION, REMOVAL AND DISPOSAL

The collection and removal of refuse is generally satisfactory, the exceptions being the few instances where the householder is required to place the refuse bin at a specified place on collection day.

But the disposal of the refuse, in too many instances, leaves much to be desired. Refuse is left uncovered for lengthy periods waiting until a bulldozer or grader is in the vicinity of the tip. This uncovered refuse provides a breeding ground for flies and mosquitoes and is an attraction and harbourage for rats. Some improvement has been effected in a very few areas by the provision of mechanical equipment for sole use at the refuse tip.

RODENT CONTROL

The control of rodents was first introduced as a precaution against bubonic plague, but added importance is given to this aspect of environmental sanitation with the knowledge that rodents are vectors of other diseases.

Local Authorities generaly ensure that any new building or alterations to existing buildings are so constructed as not to afford harbourage for rodents. In addition some Authorities supply baits free.

The Local Authorities on the coast have continued the long established practice of employing rodent control officers and Table XXVIII shows the number of rats and mice killed.

TABLE XXVIII

SHOWING NUMBER OF RODENTS DESTROYED IN COASTAL CITIES, 1962–63

City	Rats	Mice
Brisbane	51,181	7,412
Bundaberg	363	..
Cairns	1,073	440
Gympie	244	..
Ipswich	751	..
Mackay	1,343	676
Maryborough	187	..
Rockhampton	344	..
Townsville	1,224	..
Total	56,710	8,528
Total all rodents 1962–63		65,238
Total all rodents 1961–62		62,740
Total all rodents 1960–61		53,315

MOSQUITO CONTROL

The control of two well known vectors of disease is mainly the task of the individual rather than the undertaking of major works of drainage and/or reclamation by the Local Authority.

By the enforcement of "Mosquito Prevention and Destruction Regulations, 1942," Local Authorities have done much to control the well known vector of dengue fever. But the disposal of household waste waters in a manner which will prevent the breeding of the vector of filariasis is more difficult. In unsewered areas where subsurface irrigation is not possible it is difficult to get persons to collect and spread these wastes in such a manner that no ponding occurs.

CAMPING AREAS AND SEASIDE RESORTS

Officers from this Department have inspected most of the seaside resorts over the Christmas-New Year holidays when camping is at its peak. Their reports indicate that generally the provisions of "The Camp Regulations, 1949," are being observed.

WATER SAMPLING

During the year 198 chemical and 525 bacteriological samples of water were received. This has necessitated officers meeting aeroplanes and trains at all hours.

The increase in the number of bacteriological samples can be attributed, in part, to those Local Authorities who are having regular routine examinations of their reticulated water supplies.

The survey of the Brisbane River for dissolved oxygen was continued and Table XXIX shows the results.

TABLE XXIX

Dissolved Oxygen—Brisbane River Expressed in Parts per Million

Month Sample Taken		William Taylor Bridge			William Jolly Bridge			Hamilton		
		North Bank	Middle	South Bank	North Bank	Middle	South Bank	North Bank	Middle	South Bank
July, 1962	Top	9·2	9·15	9·0	4·45	4·8	4·7	5·8	4·85	5·9
	Bottom	9·9	10·5	9·3	5·2	6·5	4·4	5·15	5·5	5·35
August, 1962	Top	7·5	7·45	7·5	6·5	6·65	6·75	4·05	4·1	4·2
	Bottom	9·35	9·45	7·7	8·6	8·6	6·4	5·0	8·3	5·15
September, 1962	Top	7·7	7·8	7·7	5·9	5·85	5·65	3·0	3·4	3·3
	Bottom	8·8	7·8	8·0	6·0	8·4	5·55	3·7	7·3	4·1
October, 1962	Top	5·45	5·6	5·7	3·6	3·65	3·45	3·85	3·85	3·75
	Bottom	6·15	9·0	6·25	4·6	4·2	3·75	4·5	7·7	3·9
November, 1962	Top	5·25	5·1	5·1	2·7	2·8	3·45	4·6	6·05	4·65
	Bottom	6·8	9·15	5·0	5·2	4·3	3·6	4·75	7·0	4·55
December, 1962	Top	4·65	4·8	4·65	3·5	3·5	3·0	4·45	4·3	4·35
	Bottom	4·9	6·55	5·55	4·45	5·3	3·0	4·15	6·75	4·1
February, 1963	Top	5·3	5·4	5·25	3·25	3·75	3·6	3·95	4·3	4·2
	Bottom	5·55	7·65	5·5	5·6	5·6	3·9	4·3	6·8	3·9
March, 1963	Top	5·25	5·3	5·25	4·2	4·3	4·0	5·55	6·25	5·45
	Bottom	5·4	7·25	6·05	4·7	8·5	4·0	6·2	5·65	5·7
April, 1963	Top	5·1	5·5	5·15	3·8	3·85	3·85	5·1	5·1	5·1
	Bottom	5·45	7·65	5·25	4·9	5·85	4·1	5·1	8·0	5·3
May, 1963	Top	6·3	6·3	6·2	6·55	6·55	6·5	5·3	5·3	5·6
	Bottom	6·7	8·75	6·15	6·85	9·0	6·75	5·4	7·9	5·9
June, 1963	Top	6·3	6·2	6·2	5·9	6·2	6·3	5·9	5·9	6·15
	Bottom	6·5	8·3	6·2	6·1	9·3	6·3	6·2	8·65	6·1

PAINT

Of 86 legal samples and 3 non-legal samples of paint taken from the paint pots of painters on the job only 3 (1 legal and 2 non-legal) samples were found to contain lead. The samples which failed were from amateur painters who removed the offending paint which had been applied and were therefore not proceeded against. It appears that the professional painter is observing the law.

Furniture factories were visited. In no instance was action necessary although manufacturers who had paint containing lead on the premises were advised of the requirements of the Act.

Of 147 legal and 9 non-legal samples of paint scraped from houses 66 were found to contain lead in excess of what the law permitted. This resulted in the owners of 13 premises being required to remove offending paint.

The labelling of paint has received attention and 7 non-legal samples have been submitted to assist in the correct labelling of the prepared paint. Manufacturers generally observe the law.

TOYS

For some unknown reason the arrangements made by the wholesalers and retailers failed to prevent one brand of toys containing lead in the paint from coming on to the retail market in this State.

Among 34 non-legal samples of various toys, 12 toys of this particular brand were found to contain lead. As a result 39 legal samples of this line were obtained and large stocks were placed under seal. Thirty-four of these legal samples failed.

When the distributors undertook to withdraw all stocks from the Queensland market no further action was taken. Credit notes for their disposal beyond the State were sighted.

MISCELLANEOUS

The inspection of premises licensed under the Liquor Acts and the perusal of plans for the Licensing Commission by our officers has been continued.

Barbers' Shops, branding of footwear and the testing of water in swimming pools for residual chlorine have also received attention.

SECTION OF HOOKWORM CONTROL

The staff consisted of one Inspector until November, 1962, and two inspectors from then.

During the year 4,207 specimens were examined of which 4,056 were from coloured persons. Of these 540 were positive or 13·3 per cent. This is an increase of 3·7 per cent. on the previous year's figures. The high incidence at Badu Island accounts for this increase. A decline is evident if these Badu figures are excluded.

Visits were paid to Bloomfield, Lockhart, Edward and Mitchell Rivers, Bethel, Gorge, Mona Mona and St. Pauls Missions and Badu, Mabuiag, and Kubin settlements. Visits were also paid to Atherton, Herberton, Eacham, Douglas, Mulgrave, Johnstone, and Cardwell Shire areas where natives are known to reside.

Reports regarding the sanitary conditions of the areas visited were compiled and forwarded to the Department for submission to the various authorities concerned.

All positives have been treated initially with "Alcopar" and if a second specimen still proves positive a further dose of "Alcopar" has been given. Then if further specimens have been positive, tetrachlorethylene has been given, usually with the desired result.

DIVISION OF TUBERCULOSIS

Director: E. W. Abrahams, M.D. (Melb.), M.R.C.P. (Lond.)

Assistant Director: Cyril Evans, M.B., B.S., D.T.M., M.R.C.P. (Lond.)

Chest Physician, Cairns: R. J. B. Anderson, M.B., Ch.B., T.D.D. (Wales)

Chest Physician, Toowoomba: Gwyn Howells, M.D., M.R.C.P. (Lond.)

STAFF

It is with regret that the death of Dr. L. K. Manning, Chest Physician, Rockhampton Chest Clinic, is recorded.

Dr. I. Dickson, Townsville Chest Clinic, resigned and Dr. R. S. Nicholson was appointed to the vacancy.

Dr. G. Hales, Thursday Island Chest Clinic, has resigned and this vacancy, together with that at Rockhampton, has not as yet been filled.

BUILDINGS

In December, 1962, the Gowrie Hall ward at the Toowoomba Special Hospital was opened by the Commonwealth Minister for Health (Senator Harrie Wade) and the Minister for Health and Home Affairs (Dr. H. W. Noble). Occupation of this ward has occurred progressively during 1963 but due to staff shortages is not yet complete. This building, which is of the most modern design, is the most advanced hospital ward as yet designed in Queensland and should be a standard for further development in this field. It is proposed to use it as an investigation and treatment centre for cases of pulmonary tuberculosis in mentally disturbed individuals.

Construction of the Health and Welfare Building in George Street at the site of the old Chest Clinic is well advanced but it is already apparent that the expanded facilities of the Chest Service will no longer enable them to fit into the accommodation provided in the new building and consequently some of the present staff will remain in the present temporary accommodation.

GENERAL

During the year 826 cases of tuberculosis were notified, 105 more than in 1961-62. (Tables XXXIII and XXXVI.) Almost the whole of this increase is attributable to a greater number of cases being notified from the Chest Hospital and Thoracic Annexes. The number discovered by mass radiography has remained unchanged. This is probably due to the fact that during much of this year the country units have been operating in Far Western Queensland where cases of tuberculosis are relatively uncommon.

On March 2nd of this year the leader writer of the Medical Journal of Australia took as his topic "Tuberculosis: Control or Eradication" and criticism was expressed of the Australia-wide position in respect of mass X-ray surveys. This prompts the following comment:—

> Any community at a given time consists of three categories of individuals from the point of view of tuberculosis control—those uninfected, those infected but not showing overt disease, and those with disease, active or inactive.
>
> Compulsory mass radiography will, with the inevitable omissions due to human error, detect those in the third group but it is members of the second group which mass radiography will not detect who constitute the chief problem in control.
>
> Active cases can be treated and made non-infectious, and inactive cases can be observed at Chest Clinics where the ever-increasing numbers of those under observation create major clerical and medical problems. So far, however, no method of supervision of the infected but not diseased group has been devised. The large numbers, the long delay between infection and the onset of disease, which may be many years, and the usual insidious onset of illness when it occurs combine to make them the major and as yet unsolved problem in control schemes.
>
> It is from this group that the majority of next year's cases and also the majority of cases in the next decade will arise. Even if new infections could be entirely prevented cases of disease will still occur for many years and it is for this reason that a rapid fall off in case rates cannot be anticipated in the near future.

There has been no increase this year in the number of cases of lung cancer seen at the Chest Clinic, the first year that this has remained unchanged since this record was kept. (Table XXXVII.)

COUNTRY CLINICS

Regular visits to country centres have again occupied much of the time of the Chest Clinic and Regional Chest Physicians. Regular visits are made to towns primarily to follow up discharged cases of tuberculosis and to ensure that their out-patient treatment is satisfactory. However, the visit of the Chest Physician to these centres also allows of consultation with local practitioners and hospital staff and it is hoped that increased use of these facilities will be made. The centres regularly visited are—from Brisbane: Nambour, Gympie, Maryborough, Bundaberg, Ipswich, Southport, Kingaroy, and the aboriginal ward at the Cherbourg Aboriginal Settlement. From Toowoomba: Dalby, Warwick, Stanthorpe, and occasional visits to western centres. Country visits from this centre have been largely occupied with follow-up of mass radiography cases and all major centres throughout the area have been visited.

Visiting from Rockhampton and Townsville has been severely dislocated due to the absence of a resident Chest Physician in these centres and visits from the Brisbane Clinic to places as far west as Longreach and Mount Isa have been necessary to maintain the clinics established at these centres.

From Cairns monthly visits have been made to Babinda, Innisfail, Mareeba, and Atherton and visits every four months to Tully, Herberton, Ravenshoe, and Mossman. Visits to Cooktown and Normanton have also been made.

MASS X-RAY SURVEYS
(Tables XXXI and XXXII)

The areas covered by the compulsory mass X-ray survey in country districts were the Shires of Pioneer, Mirani, Rockhampton, Sarina, Livingstone, Broadsound, Blackall, Barcaldine, Aramac, Longreach, and Winton in Central Queensland. In the area covered by the Toowoomba Thoracic Annexe the Shires of Taroom, Murilla, Toowoomba, Bendemere, Roma, Warroo, Bungil, Booringa, Murweh, Tambo, Jericho, Chinchilla, Tara, Wampo, Dalby, Pittsworth, Millmerran, Cambooya, Clifton, Allora, Glengallan, Warwick, Rosenthal, Stanthorpe, Inglewood, Goondiwindi, Waggamba, Balonne, Paroo, Quilpie, Jondaryan, Rosalie, and Crows Nest were included.

The compulsory survey of the Brisbane area began in December last in Redcliffe and the survey of the metropolitan area was commenced on 19th February, 1963.

These surveys have gone forward very successfully and there has been an excellent response from the general public. The country survey particularly was extremely fortunate in that no dislocation due to weather resulted despite the very wet weather encountered in South-western Queensland, and only on one occasion were the caravans late for their advertised appointments, arriving on site on one occasion two hours late. Under the conditions in which they were operating this is a great credit to the staff, and all concerned are to be congratulated on this magnificent effort.

Technical problems associated with the surveys have been greatly assisted by the appointment of a permanent X-ray engineer to the staff of the Chest Clinic and it is hoped that a system of preventive maintenance will be instituted which will prevent breakdown from occurring.

Considerable progress has been made in checking on defaulters from the mass X-ray surveys, and a successful prosecution of a non-attender in the Gladstone district was undertaken.

OVERSEAS VISIT

During three months (February, March and April) of this year the Director was absent from Queensland on an overseas visit chiefly to India, Great Britain and the United States of America. The main purpose of this visit was to investigate the management, particularly in South-east United States, of cases of disease due to mycobacteria other than true M. tuberculosis.

A paper on the occurrence of this condition in Queensland was read to the Seventh International Congress on Diseases of the Chest in New Delhi, India, in February, and very useful contacts were made with other workers in this field. The difficulties in diagnosis and treatment were discussed with many people including the original workers at the Battey State Sanatorium in Rome, Georgia, U.S.A., where the initial reports of this condition originated.

Contacts have also been laid down with the Tuberculosis Research section of the British Medical Research Council. This will mean a free flow of information regarding problems of tuberculin testing and interpretation of tuberculin tests, a problem of great importance to us in Queensland.

The Meeting of the National Tuberculosis Association of America in Denver, Colorado, provided an opportunity for obtaining information about many of the current tuberculosis control programmes of the United States, particularly those under the supervision of the United States Public Health Service.

DOMICILIARY VISITING

This is being carried on energetically in the Brisbane area. With additional nursing staff available at country centres it is hoped that the same amount of domiciliary visiting of families of diagnosed cases will be undertaken in the country districts that is at present being done in Brisbane. This is an essential part of the contact supervision of tuberculosis patients.

Approval has been granted to increase the number of sisters available for this work by the appointment of a second sister to each of the country Thoracic Annexes and these positions are currently under advertisement. As tuberculosis decreases in incidence, this section of the work—that is, control and supervision of families of cases of tuberculosis—will increase in importance.

TUBERCULIN TESTING

This has been continued throughout the State and in the Brisbane area in particular. As in former years a high rate of tuberculin positive children is still occurring which it is felt is disproportionately higher than is warranted by the number of cases of tuberculosis in young age groups. (See Table XLI.)

There is still no way in which infections due to the mycobacteria other than true tuberculosis and those due to tuberculosis itself can be identified by skin testing; the results of double tests using human and avian tuberculin in other centres where there appear to be fewer species of mycobacteria involved than in Queensland are encouraging and this work is being watched with great interest. Further testing using these antigens is planned.

STATISTICS

It will be seen in Table XXXIV that the number of cases on the case register has fallen since the last annual report. This has been due to the removal from the case register of cases now considered to have been inactive for three or more years and is a step towards establishing a case register on which only active cases will be recorded. This has also resulted in a drop in the prevalence rate and is in keeping with the policy on statistics that is recommended by the Tuberculosis Advisory Council of the Commonwealth Department of Health, 1962. (Table XL.)

In conformity with other States the term "Migrant" is now taken to mean all persons not born in Australia and not merely persons who have come to this country since the end of the second World War as has formerly been the case.

The form of Table XXXIII has also been amended to conform with the Advisory Council recommendations.

TUBERCULOSIS ALLOWANCES

In keeping with the increased number of notifications there has been a rise in the number of people in receipt of the Tuberculosis Allowance in Queensland as at 30th June, 1963—from 375 in 1962 to 420 in 1963. (See Table XLIII.)

Some difficulty is still being experienced in connection with the starting date for initial payments for Tuberculosis Allowance. This is due to the fact that commencement date for calculation for payment of the Allowance is not from the date of incapacity or of stopping work but the first Social Services payday following receipt of the application form by the State Director of Tuberculosis. This sometimes gives rise to hardship where the delay in lodgment of the form may not have been the responsibility of the patient. It is hoped that further consideration will be given by the Commonwealth Government to remedying this anomaly.

TABLE XXX

SHOWING NUMBER OF HOSPITAL BEDS IN QUEENSLAND EXCLUSIVELY AVAILIABLE FOR TUBERCULOSIS PATIENTS

Chest Hospital, Chermside	297
Rockhampton Thoracic Annexe	52
Townsville Thoracic Annexe	66
Cairns Thoracic Annexe	48
Toowoomba Thoracic Annexe	50
Thursday Island	68
Repatriation Hospitals—	
Greenslopes	79
Kenmore	75
Total	735

TABLE XXXI

SHOWING NUMBER OF X-RAY EXAMINATIONS CARRIED OUT, 1ST JULY, 1962, TO 30TH JUNE, 1963

—	Chest Clinic	Mobile Unit	North Brisbane Hospital	Princess Alexandra Hospital	Rock-hampton	Too-woomba	Cairns	Towns-ville	Thursday Island	Total
Micro Films	45,944	148,049	9,001	26,144	2,878	6,321	5,444	2,433	..	246,214
Micro Re-rays	7,266	2,521	357	659	30	80	..	366	..	11,279
Other large Films	13,242	573	..	..	4,189	6,068	4,812	3,177	578	32,639
Total	66,452	151,143	9,358	26,803	7,097	12,469	10,256	5,976	578	290,132

TABLE XXXII

Showing Results of the Compulsory Mass Chest X-Ray Survey of Persons Over 14 Years of Age From 1st January, 1962 to 31st December, 1962

Locality	Estimated number of Persons over 14 years of Age	Number of Micro-Films Taken	Number of Active Cases Found	Number of Cases per 1,000 Micro - Films Taken	Inactive Cases	Non-Specific Fibrosis	Cardiac Abnormality	Carcinoma	Other Tumors	Sarcoidosis	Bronchiectasis	No Significant Abnormality after Investigation	Pneumoconiosis	Intercurrent or Pneumonic	Under Investigation	Other Disease
Rockhampton Division	94,691	100,552	146	1·45	832	316	194	14	32	2	80	1,173	38	61	212	209
Townsville Division	1,336	1,779	10	5·62	12	8	5	..	..	..	3	43	..	3	21	6
Toowoomba Division	25,406	34,609	20	0·58	73	32	69	2	35	..	65	494	1	35	123	37
Brisbane Division	8,434	7,456	8	1·07	74	38	18	..	2	..	6	312	1	7	36	23
Special Survey—Eventide, Goodna, Freemasons' Home, Church of England Grammar School, Teachers' Training College	3,653	3,653	6	1·64	24	13	5	..	1	..	3	99	2	..	5	28
Totals	133,520*	148,049	190	1·28	1,015	407	291	16	70	2	157	2,121	42	106	397	303

* Calculated as 75 per cent. of total population as supplied by Local Authorities.

TABLE XXXIII

Showing Source of Notifications of Tuberculosis, For Year ended 30th June, 1963

Source	Pulmonary		No. of N/P Cases
	No. of Cases	Percentage of total Pulmonary Cases	
Mass Community Surveys	159	20·5	1
Private Medical Practitioners—			
(a) Direct .. .. .. 43 (b) Via Chest Clinic .. 35	69	8·9	9
General Hospitals	50	6·5	14
Chest Hospitals, Annexes and Sanatoria	249	32·2	15
Chest Clinics	172	22·2	10
Repatriation Clinics and Hospitals ..	36	4·7	..
Death Certificates	13	1·7	2
Transfers in	25	3·2	1
Special Groups—			
(a) Mental Hospital Surveys 1 (b) Gaol Surveys .. .. Nil (c) Ante-Natal Hospitals Nil	1	0·1	..
Totals	*774	100·0	*52

* Includes 5 cases of Pulmonary and Non-Pulmonary Tuberculosis, in the same patient.

TABLE XXXIV

Showing Information From Case Register

—	Brisbane			Country			State		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
Cases on Register 1-7-62	2,240	1,234	3,474	2,582	1,289	3,871	4,822	2,523	7,345
Notifications, 1962-63	217	105	322	370	129	499	587	234	821
	2,457	1,339	3,796	2,952	1,418	4,370	5,409	2,757	8,166
Cases Removed from Register 1962-63.. ..	553	375	928	71	36	107	624	411	1,035
Cases on Register 30th June, 1963	1,904	964	2,868	2,881	1,382	4,263	4,785	2,346	7,131

M.—Males; F.—Females; P.—Persons.

TABLE XXXV

SHOWING BACTERIOLOGICAL STATUS OF PATIENTS

—	Brisbane	Country	State
Pulmonary—			
Positive—			
Smear	57	97	154
Culture	91	155	246
Animal Inoculation	4	1	5
Negative—			
Smear	29	89	118
Culture	25	37	62
Animal Inoculation	1	..	1
Not Stated—			
Results pending	84	77	161
Death Notifications	6	2	8
Primary	..	5	5
Pleurisy with effusion	5	4	9
Total Pulmonary	302	467	769
Non-Pulmonary—			
Positive	5	7	12
Negative	6	6	12
Not Stated—			
Results Pending	12	19	31
Death Notification	2	..	2
Total Non-Pulmonary	25	32	57
Total All Forms	327	499	*826

* Includes 5 instances of Pulmonary and Non-pulmonary Tuberculosis, in the same patient.

TABLE XXXVI

STAGE OF DISEASE IN NEW NOTIFICATIONS OF TUBERCULOSIS

Minimal Disease	353
Moderately Advanced Disease	354
Far Advanced Disease	51
Primary	6
Pleurisy with Effusion	9
Non-Pulmonary	52
Not Stated	1
Total	*826

*Includes 5 instances of Pulmonary and Non-Pulmonary Tuberculosis, in the same patient.

TABLE XXXVII

NUMBER OF NEW CASES OF CARCINOMA OF THE LUNG SEEN AT THE CHEST CLINIC, BRISBANE

1st July, 1958 to 30th June, 1959	56
1st July, 1959 to 30th June, 1960	65
1st July, 1960 to 30th June, 1961	83
1st July, 1961 to 30th June, 1962	111
1st July, 1962 to 30th June, 1963	109

TABLE XXXVIII

SHOWING DETAILS OF TUBERCULOSIS IN MIGRANTS—QUEENSLAND

—	British			Non-British			Total		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
Cases Prior to 1st July, 1962	251	123	374	340	150	490	591	273	864
Cases, 1st July, 1962 to 30th June, 1963	65	24	89	63	28	91	128	52	180
Total	316	147	463	403	178	581	719	325	1,044

M.—Males; F.—Females; P.—Persons.

TABLE XXXIX

SHOWING NUMBER OF DEATHS FROM TUBERCULOSIS AND PREVALENCE RATE (PER 100,000 MEAN POPULATION), QUEENSLAND

Year	Deaths	Death Rate
1950	236	19·8
1951	226	18·4
1952	216	17·2
1953	162	12·6
1954	140	10·6
1955	137	10·2
1956	81	5·7
1957	92	6·6
1958	83	5·9
1959	78	5·4
1960	83	5·7
1961	72	4·7
1962	84	5·5

TABLE XL

SHOWING NUMBER OF CASES ON REGISTER AND PREVALENCE RATE (PER 100,000 MEAN POPULATION), QUEENSLAND

Year Ending	Cases on Register	Prevalence Rate
30th June, 1952	1,942	154
30th June, 1953	2,569	198
30th June, 1954	3,201	243
30th June, 1955	3,746	279
30th June, 1956	4,263	311
30th June, 1957	4,731	343
30th June, 1958	5,371	378
30th June, 1959	5,983	398
30th June, 1960	6,702	462
30th June, 1961	7,363	505
30th June, 1962	8,048	531
30th June, 1963	7,131	463

TABLE XLI

Showing Tuberculin Tests and B.C.G. Vaccinations, 1962–63

Locality	Number Tested	Did Not Return		Positive		Positive After Previous B.C.G.		Negative		B.C.G. Given		B.C.G. Not Given		B.C.G. Refused	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Chest Clinic, Brisbane	7,481	396	5·3	1,936	27·3	1,583	22·4	3,566	50·3	1,648	46·2	1,812	50·8	106	3·0
Schools, Brisbane	10,804	222	2·1	3,370	31·9	669	6·3	6,543	61·8	6,436	98·4	..	..	107	1·6
Special Surveys—Kelvin Grove State School—															
3rd July, 1962	494	9	1·8	35	7·2	..	..	450	92·8	..	..	450	100·0	..	..
1st October, 1962	468	5	1·1	43	9·3	..	..	420	90·7	..	..	420	100·0	..	..
18th February, 1963	434	12	2·8	54	12·8	..	..	368	87·2	..	..	368	100·0	..	..
17th June, 1963	414	11	2·7	61	15·1	..	..	342	84·9	..	..	342	100·0	..	..
Queensland University	588	107	18·2	197	41·0	227	47·2	57	11·8	53	93·0	..	..	4	7·0
Teachers' Training College	990	..	..	353	35·7	539	54·4	98	9·9	87	88·8	..	..	11	11·2
Somerville House*	132	..	..	11	8·3	26	19·7	95	72·0	..	..	95	100·0	..	..
Kallangur State School*	80	5	6·3	21	28·0	4	5·3	50	66·7	50	100·0	..	..	..	..
Church of England Grammar School* ..	203	..	..	82	40·4	97	47·8	24	11·8	..	..	24	100·0	..	..
Wooloowin Convent*	369	22	5·96	121	34·9	31	8·9	195	56·2	..	..	195	100·0	..	..
Maryborough Hospital Mantoux Clinic ..	44	1	2·3	17	39·5	..	..	26	60·5	26	100·0	..	..	..	..
Maryborough Hospital Student Nurses ..	43	5	11·6	22	57·9	6	15·8	10	26·3	10	100·0	..	..	..	..
Schools—Country—															
Maryborough	1,794	25	1·4	924	52·2	25	1·4	820	46·4	812	99·0	..	..	8	1·0
South Coast	1,436	19	1·3	327	23·1	81	5·7	1,009	71·2	987	97·8	..	..	22	2·2
Gayndah, Monto, and District	798	14	1·8	434	55·4	13	1·7	337	42·9	330	97·9	..	..	7	2·1
Redcliffe, Caboolture, Beaudesert, Beenleigh, Redland Bay	3,551	56	1·6	1,376	39·4	160	4·6	1,959	56·0	1,919	98·0	..	..	40	2·0
Kingaroy and District	1,592	..	..	707	44·4	174	10·9	711	44·7	704	99·0	..	..	7	1·0
Outer Ipswich Area	895	25	2·8	448	51·5	42	4·8	380	43·7	375	98·7	..	..	5	1·3
3 Battalion R.A.R. and Families	1,312	..	..	672	51·2	33	2·5	607	46·3	607	100·0	..	..	..	..
Rockhampton	2,867	86	2·99	1,227	44·1	381	13·7	1,173	42·2	1,038	88·5	127	10·8	8	0·7
Cairns	5,189	74	1·4	1,734	33·9	1,607	31·4	1,774	34·7	1,151	64·9	623	35·1	..	..
Toowoomba	2,547	46	1·8	887	35·5	343	13·7	1,271	50·8	1,105	86·9	73	5·8	93	7·3
Townsville	3,437	31	0·9	1,662	48·8	521	15·3	1,223	35·9	1,377†	112·6	107	8·7	19	1·6
Thursday Island	104	7	6·7	46	47·4	17	17·5	34	35·1	192‡	564·7	6	17·6	8	23·5
Totals	48,066	1,178	2·5	16,767	35·8	6,579	14·0	23,542	50·2	18,907 †‡	80·3	4,642	19·7	445	1·9

* Special Surveys in these schools after contacts were reported. † B.C.G. given to Grade 1 reactors.
‡ B.C.G. given without prior mantoux testing.

TABLE XLII

Complications Following Vaccinations

Locality	Age Group	No. Given B.C.G.	Local Ulcer		Enlarged Glands		Incised Glands		Total Complications	
			No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Chest Clinic, Brisbane	0– 2 years ..	552	1	0·18	5	0·91	2	0·36	8	1·45
	3–14 years ..	10,959	2	0·02	..	..	..	..	2	0·02
	Over 14 years ..	2,533	..	..	..	..	..	..	..	..
	Total	14,044	3	0·02	5	0·04	2	0·01	10	0·07
Thursday Island	0– 2 years ..	192	11	5·7	21	10·9	..	..	32	16·6
	3–14 years ..	..	..	..	..	..	..	..	..	..
	Over 14 years ..	..	..	..	..	..	..	..	..	..
	Total	192	11	5·7	21	10·9	..	..	32	16·6
Cairns	0– 2 years ..	..	..	..	..	..	..	..	..	..
	3–14 years ..	..	..	..	..	..	..	..	..	..
	Over 14 years ..	..	..	..	..	..	..	..	..	..
	Total	1,151*	..	..	..	..	..	..	..	..
Rockhampton	0– 2 years ..	52	..	..	..	..	..	..	..	..
	3–14 years ..	963	..	..	..	..	1	0·103	1	0·103
	Over 14 years ..	23	..	..	..	..	..	..	..	..
	Total	1,038	..	..	..	..	1	0·096	1	0·096
Townsville	0– 2 years ..	47	1	2·13	..	..	..	..	1	2·13
	3–14 years ..	1,072	..	..	..	..	..	..	..	..
	Over 14 years ..	258	..	..	1	0·39	..	..	1	0·39
	Total	1,377	1	0·07	1	0·07	..	..	2	0·14
Toowoomba	0– 2 years ..	..	..	..	..	..	..	..	..	..
	3–14 years ..	..	..	..	..	..	..	..	..	..
	Over 14 years ..	..	..	..	..	..	..	..	..	..
	Total	1,105*	..	..	..	..	..	..	..	..

* Age grouping not known.

TABLE XLIII

Showing Number of Tuberculosis Allowances Being Paid in Queensland, at 30th June, 1963

——	Male	Female	Total
Number accommodated in tuberculosis institutions	206	51	257
Number not so accommodated	129	34	163
Total on Allowance	335	85	420

DIVISION OF INDUSTRIAL MEDICINE

Director of Industrial Medicine: E. M. RATHUS, M.B., Ch.B. (Cape Town)
Radiation Health Physicist: K. A. STEVENS, B.Sc. (Q'ld)
Inspector in Charge—Weil's Disease Control: D. KENNEDY, M.R. San. I.

The Division applies itself to the investigation and assessment of occupational health problems and related matters. The functions of the Division are exercised under the Health Acts, but every effort is made to induce management and labour to accept recommendations made in respect of specific problems at the level of co-operative endeavour. Technical and scientific data are correlated with occupational health findings and suggestions made are based on available knowledge and experience. Implementation of suggested engineering controls, use of protective equipment, design of workplaces and related matters rest with the Chief Inspector, Factories and Shops, Department of Labour and Industry, and the Division of Occupational Safety within that Department. There is a very amicable relationship and a dove-tailing of interests between this Division and the Department of Labour and Industry on health and safety matters.

1. ROUTINE EXAMINATIONS

Upwards of 100 employees were seen during the year in whom significant symptoms had occurred. Such men are seen in order to determine the relationship of the work environment to the symptoms. Amongst these were lead workers, ex-miners, agricultural workers, radiation workers and uranium oxide packers.

Seventy-three premises were visited in order to investigate possible health hazards, and the investigations as usual were ably assisted by the scientific staff of the Industrial Hygiene Section of the Government Chemical Laboratory.

A number of routine inquiries were handled for the State Government Insurance Office, and a number of consultations undertaken. The Division has maintained information on common and less well-recognised toxic materials and the liaison between the Division and medical practitioners and public hospitals has remained rewarding and satisfactory.

2. LEAD INDUSTRY

The Division has continued to supervise workers in the hazardous lead trades and to advise specific industries where this has appeared to be indicated.

During the year more than 100 visits were paid to lead industries, and routine medical examinations carried out. Over 1,000 slides and urines were examined for stippled cells and coproporphyrin screening of exposed workers. Follow-up examinations included specimens for blood lead, haemoglobin estimations, and urinary lead excretion.

As expressed in previous reports industrial lead intoxication is diagnosed on the total picture presented. This takes into account any complaint the worker may have in respect of his general health and the findings as expressed in the biological specimens taken. Where suspicion of a problem appeared to exist a full survey of the works has followed.

It is salutary to record that the firm referred to in the last Annual Report was forced to close down owing to its inability to cope with minimum recommendations for the protection of lead workers. This firm turned up successive cases of lead poisoning with symptoms of a rather more severe nature than could be considered reasonable. The efforts made to contend with lead contamination of the environment were parlous in the extreme. These workers were engaged in the reclamation of lead from scrap of all kinds, the best recognised and most notorious of offenders as far as a potential for producing lead poisoning is concerned. These works were recently taken over by a firm who have shown every intention and capacity to provide adequate protection in plant design and it is earnestly hoped that a recurrence of the previous trouble will be avoided.

3. MISCELLANEOUS

A metal plating firm was investigated as a result of the discovery of one man with a large nasal perforation. Chromium in air studies showed that the m.a.c. was not exceeded but as is well known individual susceptibility usually determines the onset of this condition—viz., chrome ulceration of the nasal septum. The firm was requested to install lip exhaust on the chromium plating baths. The increase in modern plastic processes has been evinced in a number of enquiries for advice. Several cases of asthma-like syndromes were seen in firms using toluene di-isocyanate in the production of polyurethane foam. The combination of polyesters and fibreglass were found to follow the usual pattern of skin irritation reported in the literature. It appears that non-touch techniques, good housekeeping, reasonable working clothing and adequate washing are a minimum requirement for this industry.

4. DUSTY TRADES

A stone mason in his sixties with forty-seven years history of cutting and turning decorative stone was found to have category 3n silicosis though he did not complain of more than moderate symptoms and was still at work.

The Chest Board of the State Government Insurance Office provides valid information on the incidence of silicosis and coal-miners pneumoconiosis at the level of disability, seventeen (17) cases having been accepted during the year. It is possible only to state that the mining industry is not without hazard, and that cases are relatively few and do not occur without extensive mining experience, as instanced in a retired tin-miner from Herberton, age 73 years, with 33 years of mining tin and radiological silicosis category 3n.

5. AGRICULTURAL CHEMICALS

Two important surveys were carried out during the year. One survey embraced the hazards to which banana growers using arsenicals as a weedicide were exposed, and the other involved orchardists in the Stanthorpe area using organic phosphates.

In both cases there did not appear to be any evidence that significant hazard to health was present, but there was sufficient evidence to infer that users of agricultural chemicals should adopt reasonable minimum precautions at all times to avert problems of toxicity to any range of exposure.

The co-operation of officers of the Department of Agriculture and Stock and the growers participating is acknowledged.

6. ORGANIC PHOSPHATES

One case of occupational exposure was seen in a young man who had his hands in a solution of parathion for many hours for one day only while dipping gladioli. He had minor symptoms and a cholinesterase depression to about 40 per cent. of normal.

One case of attempted suicide with metasystox proved intensely interesting as full recovery was attained from an initial cholinesterase reading of 8 per cent. of normal. Rather heroic doses of 2 PAM were used together with atropinisation, bronchial toilet and the full facilities of the resuscitation unit of the Brisbane General Hospital.

7. FUMIGANTS

A very complete assessment was made of the hazards of large-scale fumigation of grain with methyl bromide and a code of safe practice derived as a result.

8. PUBLIC RELATIONS

Several addresses were given by request to interested groups on various topics such as safety, health in industry, handling of poisonous substances, and a series of four articles on the Handling of Pesticides appeared in the weekly issues of Queensland Fruit and Vegetable News for April, 1963. These were prepared in conjunction with the Queensland Health Education Council, as were pamphlets on pesticide safety and infections in the meat industry—"Play Safe with Pesticides", and "Don't Butcher Your Health".

A precis of the report on a "Study of Arsenical Spray Hazard to Banana Growers" appeared in the Queensland Agricultural Journal in June, 1963, and an article entitled "Points for Puzzled Planters" on the toxicity and handling of farm chemicals appeared in the Queensland Fruit and Vegetable News of 17th January, 1963.

9. BOARDS, &c.

Official attendance was required at meetings of the Occupational Health Committee of the National Health and Medical Research Council, the Health Welfare and Safety Board of the Department of Labour and Industry, the Chest Board of the State Government Insurance Office, the Air Pollution Advisory Council, and the Radiological Advisory Council.

10. RADIATION HEALTH PHYSICS SECTION

This section was established to deal with technical problems associated with the administration of the Radioactive Substances Act and the Regulations thereunder, and to be available for consultation on problems in the safe use of ionising radiation.

During the year there were issued 91 licenses to possess, use or sell radioactive substances, 62 licenses to possess and use irradiating apparatus, and 277 registrations of X-ray equipment.

Equipment to cover all radiation problems likely to be encountered in the field has been purchased. The work of this section has included investigations in the following fields:—

(a) The Medical Use of X-Rays

The Health Physicist has been consulted on the planning of X-ray departments and has carried out surveys of existing departments and inspection of X-ray equipment for public hospitals, Commonwealth departments, and private practitioners.

(b) Industrial Use of X-Rays

This has involved inspection of equipment and techniques of industrial radiography and industrial fluoroscopy. Codes of Practice for specific jobs such as the use of radiography on the Moonie pipeline construction have been drawn up and issued.

(c) Use of Radioactive Substances in Medicine

All radium appliances have been checked for leakage of radon or radium. This has resulted in the withdrawal from use of 3 radium plates. A radium spill was discovered and decontamination procedures initiated.

(d) Use of Radioactive Substances in Industry and Research

The Health Physicist has been consulted on waste disposal problems and the handling of curie quantities of activity in industrial radiography. Surveys have been carried out and safe procedures initiated in luminising works.

(e) Investigations

This section has been called to investigate radiation health problems in the handling of radioactive substances during the loading or unloading of ships. The Health Physicist has taken part in tests with radioactive material with respect to water pollution problems in Bundaberg harbour.

Investigations have been initiated on the possible health hazard due to radiation in the processing of mineral sands.

(f) Protection Film Service

This service has expanded by 20 per cent. over the last year and covers the whole of Queensland, Papua, and New Guinea. Plans have been made and film badge holders have been ordered to conform with other film badge services throughout Australia.

(g) Interstate Visits

During the year the Radiation Health Physicist visited Melbourne for a meeting of Physics in Medicine and Biology, and a meeting of Technical Officers associated with Radiation Health. With respect to the last meeting, the Radiation Health Physicist initiated discussion on waste disposal.

11. WEIL'S DISEASE CAMPAIGN

Routine activities were maintained during the period under review. Residential control was carried out, with visits being made to outlying areas as necessary. The staff remained stable with three active field inspectors and an Inspector in Charge.

The 1962 harvesting season was ushered in by wet field conditions and for the first few weeks dangerous situations presented some problems in control. These were dealt with satisfactorily.

There was an increase in the number of cases recorded, a position not unexpected, considering the large amount of sprawled and lodged cane, increased rat infestation, and unsuitable pre-harvest burning conditions.

Mechanical cutting and loading is increasing annually with some displacement of manual labour. It is interesting to note that these machines are being used on the more level terrain which in many cases constitute the danger areas from the health aspect. However, some of these machines bogged down in the field and a reversion to manual cutting was made whilst conditions rendered them inoperable.

Farm cleaning inspections during the "slack" season months for the purposes of supervising rat control and general sanitation totalled 1,673, comprising 608 first inspections and 1,605 revisits. Farms in general present a clean appearance, and with local Councils and individual farmers clearing roadsides, the effect should prove rewarding in minimising harbourages and increasing rodent control.

PEST BOARD ACTIVITIES

With few exceptions Pest Boards report added distribution of rat baits following an increase in rat infestation named by some as the worst for many years. This is not unusual following prolonged wet weather and fallen crops. In most cases a selection of bait is becoming available.

The use of chemical sprays, mechanical mowers and "slashers" is allowing rapid and effective attention to harbourages. The fencing and grazing of areas contiguous to canefields for grazing purposes is having a beneficial effect. Abandoned cane-farms where the assignments have been transferred still remain a problem as in many cases this cane is not being destroyed before vacating the land.

Agricultural drainage is receiving well merited attention and is of definite value in the control of leptospirosis.

GENERAL

No improvement can be reported in the hygienic standard of barracks during occupancy by cane gangs and the usual complaints of soil pollution and faulty refuse disposal continue. The wearing of shorts and sandshoes continues so no progress in protective clothing can be reported.

Local authorities continue to exercise rodent controls and supervision of harbourage eradication on properties, distribution of rat baits to the householder, and the sanitary conduct of garbage dumps. Some improvement in the conduct of the latter can be observed.

EPIDEMIOLOGY OF FEVER CASES

This work continues to receive attention as time permits. For the year a total of 144 cases was investigated of which 120 were employed in the sugar industry. The bulk of infections occurred during the early months of harvest coincidental with field activities under wet conditions in the sugar industry. Leptospirosis was the major illness and would serve to indicate its high infectivity under suitable conditions.

FEVER CASES

District	Leptospirosis	Scrub	Q. fever
Babinda	42 (41)	..	1 (1)
Innisfail	37 (35)	1 (1)	1
Tully	14 (8)	1	..
Cairns (including Gordonvale)	2	..	3
Total	95 (84)	2 (1)	5 (1)

Figures in parenthesis indicate cases occurring in the sugar industry.

FIELD CONTROL

During the year out of a total area of cane harvested of 134,817 acres, a total of 6,567 acres was burned under the Rat Prevention and Destruction Regulations.

DIVISION OF MATERNAL AND CHILD WELFARE

Director: H. C. MURPHY, M.B., B.S.

Deputy Director: J. MCFARLANE, M.B., B.S.

Medical Officer: H. D. MACBRIDE, B.A., M.B., B.S.

Superintendent: M. F. NIXON, F.C.N.A., S.R.N.

Deputy Superintendent: A. P. HERTWECK, S.R.N.

Last year, because of the reports of the increased incidence of congenital abnormalities due to thalidomide ingestion, an investigation was made into the causes of death of babies under one year due to congenital malformations. This analysis showed three interesting points—

(1) The number of deaths due to congenital malformations of the circultary system had increased from 34 per cent. to 52 per cent. of the total deaths under one year.

(2) The number of deaths due to congenital malformations of the digestive system had decreased from 31 per cent. to 7 per cent. of the total deaths under one year.

(3) The number of deaths due to congenital hydrocephalus had increased from 2·4 per cent. to 11 per cent. of the total deaths under one year.

These findings suggested interesting possibilities. Perhaps the pattern of the abnormalities was changing due to a changing extrinsic factor, or perhaps surgery was saving many babies with abnormalities of the digestive system who would have died ten years ago; or perhaps the diagnosis of a congenital heart lesion was being made more frequently, because it was being looked for more often.

However, although the pattern of the abnormalities seems to have changed, the rate of death has remained relatively constant (Table LXV). In 1961, it reached the low rate 3·6 deaths per 1,000 live births. Because the total number of deaths during the first year of life is decreasing, the deaths from congenital malformations are assuming greater significance—16·1 per cent. of infantile deaths in 1952 to 20·3 per cent. in 1961.

The next step was to find out the incidence and type of congenital malformation at birth.

During 1961 and 1962 there were 117 congenital abnormalities recorded in babies born at the Brisbane Women's Hospital. A total of 9,220 births occurred at the hospital during these years (4,920—1961; 4,300—1962). Tables XLVI and XLVII show an analysis of the malformations. There were 56 abnormalities in 1961 and 61 in 1962, a total of 117.

One baby was born with phocomelia and the mother of this baby gave a history of thalidomide ingestion before 12 weeks gestation. This patient came from New South Wales and the drug was not taken on the advice of a doctor. Out of the 117 mothers concerned only 21 attended ante-natal clinic before 12 weeks gestation, and thalidomide was given to none of these; some may have attended private practitioners but this is not recorded. Only one mother was given "Ancoloxan" before 12 weeks gestation and this was at 6 weeks. The baby had a severe congenital heart condition. Seven other mothers out of the 117 were known to have had "Ancoloxan" during the course of the pregnancy. Five of their babies had minor abnormalities of the skeletal system (e.g., mild talipes, accessory toe). "Aprinox" was given to two of the mothers when they were 35 weeks pregnant. One baby had a doubtful septal defect in the heart and the other a hydrocoele. "Proluton depot" injections were given to two mothers only and both babies had minor abnormalities of the uro-genital system (hydrocoele; prominent labia minora). Only one mother suffered from diabetes. She was aged 19 years and her baby (her first) had a benign sacral tumour of unknown aetiology.

Hydramnios was present in only 9 of the cases. In 7 of these there was an abnormality of the alimentary tract and in 2 the central nervous system was involved. Eight of these babies had deformities which resulted in death; the remaining one had only mild hydramnios associated with a bronchial cyst abnormality. This suggests that foetal abnormalities associated with hydramnios can be expected to be severe.

Only 20 of the babies were born before 38 weeks gestation and only 14 were under 5 lb. 8 oz. at birth. Twelve of the mothers were over 32 years of age and 46 others under 23 years of age. Twenty-nine of the babies were first children, 30 were second children, 24 were third children, 15 were fourth children, 9 were fifth children, 5 were sixth children, 1 was a seventh child, 2 were eighth children, and 1 was a tenth child.

As far as can be ascertained 15 of the 117 babies have died from congenital abnormalities. Twenty-seven of the babies (approximately 3 per 1,000 live births) had abnormalities which could endanger life.

During 1961 and 1962 combined, the incidence of congenital abnormalities was 12·7/1,000 live births and the known death rate 1·6/1,000 live births. The overall incidence of deaths from congenital abnormalities throughout the State was 3·6 to 4·1 per 1,000 live births. This suggests that many of the babies died after the immediate neo-natal period.

To see if there was any changing pattern in the abnormalities the babies born during 1953 and 1954 were also investigated (Table XLVII). This showed:—

(1) That the number of abnormalities of the circulatory system had actually *decreased.*

(3) That the number of abnormalities of the digestive system had *increased.*

(3) That the number of abnormalities of the central nervous system had *decreased.*

This as can be seen leads to more problems. The first can be answered by the fact that not all abnormalities of the cardio-vascular system are obvious at birth; the second that surgery on the digestive system is probably saving more lives than 10 years ago; and the third still presents a problem. The operative death rate for hydrocephalics is decreasing but, due to more rigid selection for operation, fewer hydrocephalics are being operated on.

An analysis of the types of abnormalities shows that 10 years ago more anencephaly and hydrocephaly was occurring at the Brisbane Women's Hospital. No Pierro-Robin syndromes were recorded in either 1953 or 1954 (Tables XLIX and L).

While analysing the 1953 and 1954 figures, the number of males and females affected was noted. The uro-genital system abnormalities in this group belong entirely to the male, while those of the alimentary system lean towards the females.

There is no real difference between the incidence of abnormalities as revealed in this investigation and those done overseas. In Queensland we are unable to obtain a perinatal mortality rate which in America is 10 per 1,000 live births of which still-births and neo-natal deaths make up 6·4 per 1,000 live births. Until registration of still-births is compulsory there will not be adequate information.

TABLE XLIV

DEATHS OF INFANTS UNDER ONE YEAR OF AGE FROM CONGENITAL MALFORMATIONS

Congenital Malformations	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Monstrosity	10	4	7	11	7	8	6	8	4	6
Spina bifida and meningocele ..	24	18	13	14	17	10	18	20	16	14
Congenital hydrocephalus	7	8	10	13	11	14	12	8	16	15
Nervous system	6	4	5	3	3	5	2	5	5	..
Circulatory system	45	51	54	47	59	47	73	72	77	56
Cleft palate and harelip	2	..	1	2	1	2	2	..	2	1
Digestive system	28	28	24	25	26	16	18	16	11	17
Genito-urinary system	3	2	5	7	2	3	6	9	7	4
Bone and joint	..	..	4	1	..	2	3	1	2	..
Unspecified	4	6	5	12	6	6	15	12	9	17
Totals	129	121	128	135	132	113	155	151	149	130
Congenital malformations as a percentage of total infant deaths under one year of age	18·9	18·8	19·5	18·3	18·0	17·2	21·5	20·4	20·3	17·2

Does not include congenital mental deficiency, hernia, mucoviscidosis.

TABLE XLV

DEATH RATES FROM CONGENITAL MALFORMATIONS PER 1,000 LIVE BIRTHS, QUEENSLAND

1952	4·0
1953	4·2
1954	3·9
1955	4·0
1956	4·2
1957	3·9
1958	3·3
1959	4·4
1960	4·3
1961	4·1
1962	3·6

TABLE XLVI

FOETAL ABNORMALITIES—1961

		Total
Skeletal System	18 talipes .. .. .. 1 syndactyly .. .. 2 deformed ears	21
Alimentary System ..	3 hare lip .. .. .. 1 imperforate anus ..	4
Central Nervous System ..	1 craniostenosis .. .. 1 hydrocephalus .. .. 1 eye deformity	3
Uro-genital System ..	1 polycystic kidney .. 3 hypospadias .. .. 6 hydrocoele .. .. 1 undescended testis ..	11
Cardio-Vascular System ..	2 congenital heart lesions 1 haemangioma	3
Complex	1 alimentary .. .. 1 mongol .. .. .. 1 central nervous system	3

TABLE XLVII

FOETAL ABNORMALITIES—1962

		Total
Skeletal System	18 talipes .. .. .. 1 phocomelia .. .. 2 congenital dislocation of hip	21
Alimentary System ..	4 hare lip .. .. .. 4 intestinal obstruction .. 1 exomphalos .. .. 2 diaphragmatic hernia ..	11
Central nervous System ..	2 eye abnormalities .. 1 encephalocoele ..	3
Uro-genital System ..	6 hypospadias .. .. 3 undescended testis .. 3 hydrocoele	12
Cardio-Vascular System ..	2 congenital heart lesions 1 haemangioma	3
Complex	2 minor .. .. .. 2 Pierro-Robin syndrome 1 could cause death ..	5

TABLE XLVIII

FOETAL ABNORMALITIES—BRISBANE WOMEN'S HOSPITAL

——	1953	1954	1961	1962
Skeletal System	20	23	27	23
Alimentary System ..	6	4	4	11
Central Nervous System ..	15	4	3	3
Uro-genital System ..	14	7	12	12
Cardio-Vascular System ..	13	2	3	3
Respiratory System ..	0	1	1	0
Skin	3	0	1	1
Mongol	2	1	1	3
Complex	2	1	4	5
Totals	75	43	56	61
Live births	3,530	3,830	4,920	4,300
Rate per 1,000 live births ..	21·3	11·3	11·4	14·2

TABLE XLIX

FOETAL ABNORMALITIES—1953

		Total
Skeletal System	13 talipes .. .. .. 1 absence of L. hand .. 1 agenesis of L. hand ..	15
Alimentary System ..	2 hare lip .. .. .. 2 serious	4
Central Nervous System ..	4 hydrocephalus .. .. 4 meningocoele or meningomyelocoele .. 3 anencephaly	11
Uro-genital System ..	9 hypospadias .. .. 1 hydrocoele .. .. 1 epispadias	11
Cardio-Vascular System ..	6 congenital heart lesions 5 haemangiomas ..	11
Complex	1 imperforate anus .. 1 oesophageal atresia ..	2

TABLE L

FOETAL ABNORMALITIES—1954

		Total
Skeletal System	20 talipes .. .. .. 1 syndactyly .. .. 1 webbing of fingers .. 1 scalp defect	23
Alimentary System ..	2 cleft palate .. .. 1 hare lip .. .. .. 1 diaphragmatic hernia ..	4
Central Nervous System ..	2 meningomyelocoele .. 1 anencephaly .. .. 1 encephalocoele ..	4
Uro-genital System ..	5 hypospadias .. .. 2 hydrocoele	7
Cardio-Vascular System ..	2 congenital heart lesions	2
Complex	1 mermaid	1

THE YEAR'S WORK

Throughout the State there are now 258 centres and sub-centres, 77 being in the Metropolitan area and 181 in the country. The overall attendances show a decrease, but the actual number of infants who attended the Clinics are the same as in the previous year despite a drop of 947 in the number of births.

Other factors influencing the overall attendances were the extremely wet weather in practically the whole of Queensland, particularly in March, the restricted parking facilities and the cost of public transport. In an attempt to overcome metropolitan traffic difficulties, centres were established at Mount Gravatt, Holland Park West, Stafford Heights, and West Chermside. As the metropolitan growth extends outwards it will become necessary for further decentralisation in the near future.

TABLE LI

Attendances of Infants and Children at Maternal and Child Welfare Centres and Sub-Centres

——	1960–61	1961–62	1962–63
Metropolitan			
Fortitude Valley and Sub-Centres	31,426	26,962	25,281
Herschell Street and Sub-Centres	40,086	34,681	18,977
Inala and Sub-Centres	..	..	9,273
Moorooka and Sub-Centres (Parent Centre from 28–11–60)	8,213	14,426	12,533
Mount Gravatt and Sub-Centres	..	..	6,463
Nundah and Sub-Centres	15,122	15,450	16,329
Paddington and Sub-Centres	13,432	12,774	12,775
Sandgate and Sub-Centres	13,980	14,554	13,953
South Brisbane Sub-Centres	11,329	8,841	..
West End and Sub-Centres	9,613	8,963	9,241
Woolloongabba and Sub-Centres	28,799	22,018	24,603
Wynnum and Sub-Centres	10,672	9,728	10,816
Country			
Atherton and Sub-Centres	4,447	4,152	3,870
Ayr and Sub-Centres	6,449	6,310	6,522
Barcaldine and Sub-Centres	2,906	2,753	2,851
Biloela and Sub-Centres	7,195	6,408	5,691
Bowen and Sub-Centres	6,219	6,234	5,618
Bundaberg and Sub-Centres	15,630	14,718	11,774
Cairns and Sub-Centres	23,100	24,888	18,817
Charleville and Sub-Centres	4,028	4,465	3,638
Charters Towers	3,479	3,397	2,778
Dalby and Sub-Centres	5,250	5,600	5,394
Emerald and Sub-Centres	4,138	3,996	4,379
Gayndah and Sub-Centres	6,052	6,315	5,660
Gladstone and Sub-Centres	4,499	4,716	4,479
Goondiwindi and Sub-Centres	6,743	5,642	5,751
Gympie and Sub-Centres	9,024	9,503	9,862
Ingham and Sub-Centres	5,402	5,612	5,085
Innisfail and Sub-Centres	11,401	10,625	9,479
Ipswich and Sub-Centres	20,632	20,598	19,540
Kingaroy and Sub-Centres	3,435	2,873	3,123
Longreach and Sub-Centres	2,626	2,503	3,329
Mackay and Sub-Centres	17,842	18,391	18,199
Mareeba and Sub-Centres	4,985	4,834	6,540
Maryborough and Sub-Centres	12,818	11,795	10,777
Mount Isa and Sub-Centres	8,602	6,800	6,651
Murgon and Sub-Centres	3,637	4,320	5,394
Nambour and Sub-Centres	8,079	7,268	6,638
Railway Car Sub-Centres	4,543	4,295	3,557
Rockhampton and Sub-Centres	24,173	19,715	20,597
Roma and Sub-Centres	5,707	5,211	5,565
Southport and Sub-Centres	10,714	9,572	9,565
Toowoomba and Sub-Centres	11,325	10,684	11,054
Townsville and Sub-Centres	20,011	19,910	20,290
Warwick and Sub-Centres	7,137	6,183	5,922
Social Welfare Services	4,762	4,531	4,160
Totals	479,662	453,214	432,793

Total Attendance of Infants and Children and Expectant Mothers

1960–61	1961–62	1962–63
494,215	467,248	446,578

EXTENSIONS TO THE SERVICE

A new Clinic building was opened at Ayr on the 17th April, 1963, and also on the 2nd March, 1963, a new Clinic building was opened at Kingaroy.

A Parent Centre at Mount Gravatt was opened on 18th December, 1962.

The following sub-centres were opened during the year:—

(1) Holland Park West on 24th December, 1962, serviced from Mount Gravatt.

(2) Stafford Heights on 1st February, 1963, serviced from Nundah.

(3) West Chermside on 4th February, 1963, serviced from Nundah.

(4) Leichhardt on 6th February, 1963, serviced from Ipswich.

(5) Woodridge on 4th March, 1963, serviced from Mount Gravatt.

(6) Enmore on 5th June, 1963, serviced from Cairns.

The South Brisbane sub-centres are now operated from Mount Gravatt as from 1st February, 1963.

Approval has been given for the establishment of sub-centres at Aitkenvale and Wallangarra.

A motor vehicle has been allotted to the Gympie Centre.

It is anticipated that early in the financial year the Mobile Clinic will be operating to service outlying centres such as Bunyaville, Sunnybank, Moggill, and other centres which are difficult of access or have no Clinic accommodation available.

TABLE LII

An Analysis of the New Patients Seen at the Centres

	1960–61	1961–62	1962–63
Infants—			
Under one year	22,859	23,052	23,070
One to two years	6,848	6,566	6,277
Over two years	3,134	2,598	2,198
Total	32,841	32,216	31,545
Expectant mothers	1,713	1,681	1,389
Total new cases	34,554	33,897	32,934

In December-January of this year Dr. Jean McFarlane attended a Medical Women's International Association Congress at Manila where she presented a paper—Education of the Public in the need for Parent Education.

The theme of the Congress was "Parent Education" and 6 papers were presented by doctors from America, England, Norway, Germany, and France.

All the facets of education were considered including the education of healthy children by healthy parents, education of the medical student in regard to parent education, education in regard to mental health and sex hygiene. Over 200 medical women from all over the world were present and many showed a great interest in Australia.

STAFF

The staff position is as it has been for many years with a preponderance of temporary staff—73 permanent and 83 temporary.

TABLE LIII

Social Welfare Section

——	1961–62	1962–63
Social Service visits	4,531	4,165
Number of newborns visited at home	850	791
Number of newborns visited in Brisbane Women's Hospital, St. Andrew's, Corinda Maternity and Boothville	12,127	9,054
Number of test feeds given	69	61
Number of phenylketonuria tests	416	501

VITAL STATISTICS

For the year 1962 the infant mortality rate was 21·1 compared with 20·0 in the previous year.

During the year 1962, 35,690 births were registered, a decrease of 947 on the previous year. There were 18,354 males and 17,336 females born, giving a masculinity rate of 105·9. The natural increase of 22,508 was equivalent to 1·5 per cent. of the population. The birth rate for 1962 was 23·2 per 1,000 mean population compared with 24·2 in 1961.

MARRIAGES

Registrations of marriages in 1962 numbered 10,642 giving a marriage rate of 6·9 per 1,000 mean population, the same as in the previous year. Minors married numbered 5,907, comprising 1,421 males and 4,486 females.

MATERNAL MORTALITY

The maternal mortality rate was 0·64 per 1,000 live births compared with 0·76 in 1961. There were 23 deaths during the year, caused by diseases and accidents of pregnancy and childbirth. Of these 14 were due to complications of childbirth and 7 were due to diseases and accidents of pregnancy (excluding 2 abortions). The causes of the 14 deaths due to diseases and accidents of childbirth were as follows:—

Placenta praevia or antepartum haemorrhage ..	2
Retained placenta	2
Delivery complicated by disproportion or malposition of foetus	2
Delivery with other complications	4
Puerperal pulmonary embolism	1
Puerperal phlebitis and thrombosis	1
Cerebral haemorrhage in the puerperium	1
Puerperal infectious hepatitis	1

The cause of the 7 deaths due to diseases and accidents of pregnancy were as follows:—

Toxaemias of pregnancy	3
Infection of genito-urinary tract during pregnancy	2
Detachment of placenta	1
Thrombosis complicating pregnancy	1

TABLE LIV

A Comparison of Maternal Mortality, Queensland and Australia

Year	Maternal Deaths		Maternal Mortality Rate*	
	Queensland	Australia	Queensland	Australia
1911	98	615	5·77	5·03
1921	108	643	5·31	4·72
1931	108	650	6·06	5·48
1941	92	490	4·28	3·64
1951	35	203	1·18	1·05
1956	29	119	0·89	0·56
1957	21	138	0·62	0·63
1958	16	111	0·47	0·50
1959	21	104	0·59	0·46
1960	24	121	0·68	0·53
1961	28	107	0·76	0·44
1962	23	85	0·64	0·33

* Per 1,000 live births

TABLE LV

Maternal Mortality—Australian States 1960-1962

—	1960		1961		1962	
	No. of deaths	Rate*	No. of deaths	Rate*	No. of deaths	Rate*
New South Wales ..	56	0·69	42	0·48	29	0·34
Victoria	16	0·25	21	0·32	12	0·18
Queensland	24	0·68	28	0·76	23	0·64
South Australia ..	13	0·62	6	0·26	13	0·61
Western Australia ..	8	0·48	7	0·41	5	0·29
Tasmania	4	0·45	3	0·33	3	0·34
Northern Territory ..	..	..	..	..	..	..
Australian Capital Territory.. ..	..	..	..	..	..	..
Australia ..	121	0·54	107	0·44	85	0·36

* Per 1,000 live births .. No deaths

INFANTILE MORTALITY

Deaths of infants aged under one year numbered 754, comprising 425 males and 329 females, compared with 733 in 1961. Compared with the previous year, the rate for the metropolitan area increased from 16·7 to 17·4, the rate for the sub-tropical (non-metropolitan) area decreased from 21·7 to 21·1, whilst the rate for the tropical area increased from 22·5 to 26·7 per 1,000 live births.

The total number of deaths due to prematurity (unqualified) was 131 compared with 141 in 1961. Deaths from prematurity since 1951 were as follows:—

1951	153
1952	187
1953	145
1954	185
1955	137
1956	188
1957	163
1958	139
1959	118
1960	140
1961	141
1962	131

Compared with 1961, the metropolitan area recorded 12 more deaths from immaturity (unqualified), whilst in the tropical and sub-tropical (non-metropolitan) areas the number of deaths decreased by 14 and 8, respectively.

TABLE LVI

Causes of Deaths in Infants under One Month of Age—Queensland, 1962

Cause	1961	1962				Increase or Decrease
		Metropolitan	Sub-Tropical (a)	Tropical	Total	
Immaturity (unqualified)	140	38	52	41	131	−13
Immaturity with mention of any other subsidiary condition	5	1	..	..	1	
Congenital Malformations	84	30	26	22	78	− 6
Post-natal Asphyxia and Atelectasis	78	29	40	28	97	+19
Intracranial and Spinal injury at birth	61	11	15	17	43	−18
Other birth injury	38	8	18	20	46	+ 8
Haemolytic diseases of newborn (Erythroblastosis) ..	20	8	10	3	21	+ 1
Pneumonia of newborn	16	4	10	9	23	+ 7
Haemorrhagic disease of newborn	21	5	4	4	13	− 8
Neo-natal disorders arising from Maternal Toxaemia ..	7	1	6	3	10	+ 3
Diarrhoea of newborn	3	1	2	..	3	..
Other diseases peculiar to early infancy	56	28	17	6	51	− 5
Total of diseases peculiar to early infancy ..	529	164	200	153	517	−12
All other Causes	13	4	6	9	19	+ 6
Totals	542	168	206	162	536	− 6

(a) Excluding Metropolitan.

TABLE LVII

CAUSES OF DEATHS IN INFANTS UNDER ONE YEAR—QUEENSLAND, 1962

Cause	1961	1962				Increase or Decrease
		Metropolitan	Sub-Tropical (*a*)	Tropical	Total	
Immaturity (unqualified)	141	38	52	41	131	−14
Immaturity with mention of any other subsidiary condition	6	1	1	..	2	
Congenital Malformations	149	56	39	35	130	−19
Post-natal Asphyxia and Atelectasis	78	30	41	30	101	+23
Intracranial and Spinal injury at birth	61	11	15	17	43	−18
Other birth injury	39	8	18	20	46	+ 7
Haemolytic disease of newborn (Erythroblastosis)	21	8	10	3	21	..
Pneumonia of newborn	16	4	10	9	23	+ 7
Haemorrhagic disease of newborn	21	5	4	4	13	− 8
Neo-natal disorders arising from Maternal Toxaemia	7	1	6	3	10	+ 3
Diarrhoea of newborn	3	2	2	..	4	+ 1
Other diseases peculiar to early infancy	57	31	18	9	58	+ 1
Total Diseases of early infancy	599	195	216	171	582	−17
Bronchopneumonia, other and unspecified Pneumonia	45	4	18	17	39	− 6
Gastroenteritis and Colitis	21	4	11	12	27	+ 6
Lobar Pneumonia	3	..	2	5	7	+ 4
Diseases of Pancreas	4	1	1	3	5	+ 1
Meningitis, except Meningococcal and Tuberculosis	3	5	4	7	16	+13
Accidents, Poisonings and Violence	16	6	15	5	26	+10
All other causes	42	18	17	17	52	+10
Total Deaths under 1 year	733	233	284	237	754	+21

(*a*) Excluding Metropolitan.

TABLE LVIII

CAUSES OF DEATHS IN INFANTS MORE THAN ONE MONTH, BUT LESS THAN TWELVE MONTHS OF AGE—QUEENSLAND, 1962

Cause	1961	1962				Increase or Decrease
		Metropolitan	Sub-Tropical (*a*)	Tropical	Total	
Immaturity (unqualified)	1	..	..	..	..	− 1
Immaturity with mention of any other subsidiary condition	1	..	1	..	1	
Congenital Malformations	65	26	13	13	52	−13
Post-natal Asphyxia and Atelectasis	..	1	1	2	4	+ 4
Other diseases peculiar to early infancy	3	4	1	3	8	+ 5
Total of diseases peculiar to early infancy	70	31	16	18	65	− 5
Bronchopneumonia, other and unspecified Pneumonia	45	4	18	17	39	− 6
Gastroenteritis and Colitis	21	4	11	12	27	+ 6
Lobar Pneumonia	3	..	2	5	7	+ 4
Diseases of Pancreas	2	1	1	2	4	+ 2
Meningitis, except Meningococcal and Tuberculosis	1	4	1	5	10	+ 9
Accidents, Poisonings and Violence	15	6	15	3	24	+ 9
All other causes	34	15	14	13	42	+ 8
Total Deaths 4 weeks and under 1 year	191	65	78	75	218	+27

(*a*) Excluding Metropolitan.

TABLE LIX

MAJOR CAUSES OF DEATH IN FIRST YEAR OF LIFE (QUEENSLAND, 1953–1962). PERCENTAGE OF TOTAL INFANT DEATHS

Year	Pre-maturity	Congenital Mal-formation	Birth Trauma	Post-natal Asphyxia	Pneumonia (except lobar)	Erythro-blastosis	Pneumonia of the Newborn	Gastro-enteritis and Colitis	Neo-natal Diseases arising from Toxaemia	Accidents and Violence
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1953	18·9	18·9	16·0	10·5	4·1	3·5	3·7	4·2	3·3	1·8
1954	27·0	18·8	15·5	9·6	2·6	1·7	2·4	3·5	3·3	1·4
1955	21·5	19·5	16·3	10·0	4·3	3·5	3·3	3·2	2·1	1·5
1956	25·7	18·3	12·5	8·4	7·7	3·4	2·2	3·1	2·0	1·8
1957	22·4	18·0	14·6	7·9	6·3	3·3	3·7	2·4	1·4	3·0
1958	21·6	17·2	16·4	9·3	5·6	3·2	2·6	2·3	1·4	2·1
1959	17·5	21·5	14·7	9·4	4·7	2·9	2·5	2·9	1·0	3·3
1960	19·6	20·4	14·9	10·1	4·1	2·4	2·4	3·6	2·4	2·2
1961	20·1	20·3	13·6	10·6	6·1	2·9	2·2	2·9	1·0	2·2
1962	17·6	17·2	11·8	13·4	5·2	2·8	3·1	3·6	1·3	3·4

Deaths of children aged one year and under five years

(*a*) Deaths of children aged one year and under two years during the year 1962 numbered 55, representing a death rate of approximately 1·6 per 1,000 children in that age group. There were 57 deaths in 1961.

The chief causes of death were:—

Accidents		15
Pneumonia—		
Other	4	12
Bronchopneumonia	8	
Congenital malformations		6
Gastro-enteritis		5
Malignant neoplasms		2

Of the 15 deaths (9 males, 6 females) due to accidents, one was caused by accidental poisoning, and five by drowning.

(*b*) The deaths of children aged two and under five years during the year numbered 83, representing a death rate of approximately 0·8 per 1,000 children in that age group. Deaths in 1961 were 77.

The chief causes of death were:—

Accidents	27
Malignant neoplasms	12
Pneumonia (all kinds)	9
Acute laryngitis and tracheitis	4
Acute infectious encephalitis	2
Congenital malformations	2

Of the 27 deaths due to accidents, five were caused by motor vehicle accidents and four by drowning.

TABLE LX

CAUSES OF DEATHS OF PREMATURE (IMMATURE) INFANTS

—	1960	1961	1962
Immaturity unqualified	140	141	131
Ill-defined diseases peculiar to early infancy, with immaturity	33	45	42
Post-natal Asphyxia and Atelectasis, with immaturity	43	46	56
Intracranial and Spinal injury at birth, with immaturity	18	17	8
Other birth injury, with immaturity	45	18	32
Neo-natal disorders arising from Maternal Toxaemia, with immaturity	17	5	10
Pneumonia of newborn, with immaturity	5	6	4
Haemorrhagic diseases of newborn, with immaturity	3	7	2
Haemolytic disease of newborn, with immaturity	6	1	11
Nutritional Maladjustment, with immaturity	..	..	1
Immaturity with mention of any other subsidiary condition	5	6	2
Umbilical Sepsis, with immaturity	..	..	..
Other Sepsis of newborn, with immaturity	1	1	..
Diarrhoea of the newborn, with immaturity	..	..	2
Totals	316	293	301
Total under one year, with immaturity	316	293	301
Total under one month, with immaturity	315	291	296

TABLE LXI

ACCIDENTAL DEATHS OF CHILDREN (AGED 1 AND UNDER 15 YEARS)

—	1957		1958		1959		1960		1961		1962		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Road Accidents	20	9	18	13	24	11	17	13	16	19	26	12	198
Firearms	..	..	3	1	6	..	2	1	1	..	4	3	21
Drowning	16	6	13	13	19	7	11	6	18	3	13	4	129
Falls	1	1	1	1	1	2	2	1	..	..	3	..	13
Other Accidents	25	11	21	9	22	14	19	22	31	4	27	14	219
	62	27	56	37	72	34	51	43	66	26	73	33	580
Totals	89		93		106		94		92		106		580

In 1962, thirty-eight deaths (26 males and 12 females) in this age group were caused by road accidents. The total number of deaths was 106—14 more than the previous year.

Accidental deaths of children aged one and under fifteen years

Accidental deaths of children in this age group numbered 106 in 1962 compared with 92 in 1961, an average of 93 in the ten years 1953 to 1962 inclusive. The total deaths of children in this age group from all causes were 267, of which almost 40 per cent. were caused by accident.

PRE-SCHOOL HEALTH CENTRES

Five thousand eight hundred and eighty-two toddlers were examined during the year. Three hundred and sixty-one clinics were held during the year, 43 more than the previous year, and the daily average attendance was 16·3. Ten kindergartens are now visited and it is hoped to extend this service during the coming year.

Country Centres

Owing to the poor attendances at Toowoomba Centre it was decided to close this Centre until the new Centre is built. This will be in a much more central and convenient position.

	Total	Daily Average
Cairns	395	11·9
Townsville	284	14·2
Rockhampton	114	5·7

DIRECTOR'S CONSULTANT CENTRE

Number of children and babies whose mothers received advice	1,524
Number examined for admission to Sandgate Home	1,362
Number advised by telephone	845
Total	3,731

ANTE-NATAL SECTION

During the year 940 new patients attended the ante-natal clinics at Woolloongabba, Fortitude Valley, Caboolture, and Inala. This is the first full year of clinics at the Inala Centre and a total of 398 mothers have attended during the year. The lectures by the Sisters to the expectant mothers, and the film showings, continue to be well attended and the lectures have been extended to the Inala Centre where, unfortunately, the attendances have been small as most of the mothers in this area already have a number of children.

One of the interesting patients was that of a primipara who, although having diabetes insipidis, had a normal labour. Another patient had a ruptured uterus, following a previous caesarean section discovered on routine vaginal examination following a normal delivery.

TABLE LXII

Summary of Ante-Natal Patients

——	New Patients	Subsequent Visits	Post-natal Examination	Total	Talks to Mothers	Attendances at Films (4 Sessions)
Caboolture	42	244	24	310	..	..
Fortitude Valley	201	1,768	160	2,129	245	108
Woolloongabba	344	2,528	179	3,051	308	..
Inala	353	2,215	194	2,762	55	..

TABLE LXIII

Ante-Natal Section—Correspondence

	1962–63
Circular letters forwarded to expectant mothers (No. 1)	5,380
Circular letters forwarded to expectant mothers (No. 2) re " The Expectant Mother " books	2,272
Response to circular letters	1,490
Serial letters sent to expectant mothers ..	11,737
Letters received from expectant mothers ..	574
Special letters of advice sent on request	381
Copies of " The Expectant Mother " sent on request	1,424
Requests from Country centres and hospitals for " The Expectant Mother " book	1,073
Copies of "Ante-natal and Post-natal Exercises " sent on request to expectant mothers ..	1,451
Requests from country clinics for "Ante-natal and Post-natal Exercises "	680
Copies of baby patterns sent on request ..	70
Copies of maternity belt patterns sent on request	36

TABLE LXIV

Mothercraft Homes

	Babies		Mothers	
	Nnmber	Daily Average	Number	Daily Average
Clayfield	165	12·83	54	2·02
Ipswich	163	8·3	94	3·4
St. Paul's Terrace ..	214	13·1	81	2·3
Toowoomba	152	12·36	43	1·97
Rockhampton	136	10·9	43	1·54

SANDGATE HOME

Admissions during the year totalled 1,148 of whom 220 were babies, 281 toddlers, and 647 older children.

An outbreak of measles and chickenpox in September and October forced a closure until all contacts were discharged.

In the toddler's section measles and chickenpox was present from July to December and only those children who previously had infection were admitted.

CORRESPONDENCE SECTION

Queensland mothers who are temporarily stationed in New Guinea, Malaya, Northern Territory, and Fiji, and not within reach of a local Baby Health Centre, are appreciating advice from this Section.

There has been a reduction in the number of birth notifications forwarded from centres. The names of mothers who are not within reach and those within reach who have been missed during hospital visits are the only ones forwarded to Correspondence Section.

TABLE LXV

Correspondence

——	Year ending 30–6–63	Year ending 30–6–62
Number of Birth Notifications received	4,484	6,106
Number of Circulars posted—		
(1) Within reach of a Centre	1,638	2,638
(2) Not within reach of a Centre	2,846	3,566
Letters to correspondents in response to Circular Number 2	787	860
Letters of advice re feeding and management sent on request	1,713	1,673
Number of " Care of Mother and Child " sent on request	856	950
Number of pamphlets sent advising Immunisation	4,487	6,104
Number of Birthday Cards sent during the year	265	194
Number of telephone calls re feeding or management	901	690

MOTHERCRAFT SCHOOL LECTURES

This teaching continues to be most satisfactory and the number of pupils attending classes in the metropolitan area is 3,627. Classes are also held in Winton, Hughenden, Richmond, Julia Creek, and Charters Towers, a total of 115 attending these centres.

Approval has been given for the extension of this service to all High Schools throughout the State, to begin at the commencement of the next academic year.

Whereas there are now 35 schools receiving this teaching it is expected that during the next academic year approximately 133 schools will be receiving lessons.

The following are the titles of the articles of topical interest which have been forwarded each month to 60 newspapers throughout the State:—

Infectious diseases.
Does your child have disturbed sleep?
Why should I give my baby orange juice?
Has your baby thrush?
Children and motor cars.
Why do mothers die in childbirth?
Starting school.
Skin infections.
Don't find out about choking by "accident".
Let baby sleep alone.
Why shouldn't I give my baby a dummy?

DIVISION OF SCHOOL HEALTH SERVICES

Chief Medical Officer: G. M. S. May, M.B., B.S. (Melb.)
Medical Officer: Vacant—February-June.
Chief Dental Officer: T. D. Pugh, L.D.S. (Eng.), L.D.Q.

After many years of valuable service to School Health Services, Dr. P. R. Patrick was promoted to Senior Health Officer, Health and Medical Branch. As Chief Medical Officer, he was held in high esteem not only by the officers of this branch, but was also respected by others associated with him.

Dr. V. M. O'Hara was appointed temporarily to the position of School Medical Officer.

School Health sisters visited 905 country and 84 metropolitan schools—a total of 989 as against 883 in 1961–62. This was made possible by an increase in staff. Country sisters have managed their itineraries very well despite many difficulties, problems of travel, and accommodation in remote and isolated areas.

Altogether, 112,483 children were examined by sisters, an increase of 13·5 per cent. From this number, 5,002 children had disabilities of which parents were notified and advised to seek further advice and attention. Although numerically higher than in previous years, the percentage of children notified has remained approximately the same for several years. Of those notified, 83·3 per cent. took action within two months. This proportion is evenly distributed over all areas, and has remained fairly constant in the past few years. The remainder are further urged to seek advice and many promised to do so at a more opportune time; some leave the area, while a few take no action at all.

In addition to physical examinations, the sisters ensure that school sanitation meets the required standards, and they give both direct and indirect health education.

ADDITIONAL ACTIVITIES

In the metropolitan area, procedure was changed from selected grades, to the examination of all grades. This did not unduly increase the duration of visits, but facilitated procedure generally, besides affording the children a more complete supervision.

In Brisbane, sisters have many additional duties to reduce the time spent at schools. Firstly, medical examinations of 468 teacher trainees were organised at both Teachers' Training Colleges, with 44 University and 223 Junior Trainee Scholarship applicants at William Street, where examinations were carried out under difficult conditions.

Secondly, the Department of Child Health, University of Queensland, with the Division of Tuberculosis has been conducting a series of examinations quarterly, for a two-year period at Kelvin Grove State School to study variations of the reaction to tuberculin.

The School Health sisters assist in the organisation and the management of this series.

Thirdly, tetanus immunisation and re-inoculations have been given to students at the Queensland Agricultural High School and College, Lawes.

As a result of these additional duties, school itineraries have been taking up to 2½ years to complete. Country sisters without interruptions complete their itineraries in 1–2 years.

It is obvious, therefore, that additional sisters are necessary, especially metropolitan, to decrease the gap between examinations. The ideal objective is to examine and review children annually and ensure each Grade I child is seen in his first year of school.

Emotional disturbances are found during visits to schools, involving appraisal of the child in both school and home situations. This is satisfactorily done in most cases by the school sisters, but as many as can be are referred to the Division of Social Work, while the more severe disturbances are referred direct to the Division of Welfare and Guidance.

Although many sisters have attended the Division of Welfare and Guidance and received valuable tuition relative to these problems, the appointment of a social worker to School Health Services would materially assist in the investigation of these children in the early stages.

SPECIFIC DISABILITIES

The most frequently met disability was defective vision, 2,555, or 2·27 per cent., of children examined being notified. Other eye disabilities totalled 569, making a total of 3,124, or 2·9 per cent. of children examined.

The number of other eye disabilities notified from the metropolitan area increased from 110 in 1961–62 to 230 in 1962–63 owing to the greater detection of squints, many latent, following a lecture demonstration given by a leading eye specialist. Similar material is being distributed to the country centres.

Next in frequency of occurrence, deafness was found in 571 children (0·5 per cent). Hearing tests are conducted by school sisters, using puretone audiometers and otometers, supplied by courtesy of the Commonwealth Accoustic Laboratory, and these are distributed to all centres; thus accurate screening is carried out. The School Medical Officer further tests children in the metropolitan area with a modern Danavox audiometer. In bilateral deafness, or severe unilateral cases, Commonwealth Accoustic Laboratory is advised and they conduct further examinations. In lesser unilateral cases, the teacher is advised and suitable positioning in class recommended, and, of course, parents are notified.

Where defective vision, or deafness is discovered, particular care is taken to determine if this has influenced the child's progress; discussion with the teacher, positioning in class are considered, and in more severe cases, referral to the Research and Guidance Branch of the Education Department for further assessment of intelligence and for special assistance to give the child a better opportunity to progress.

In a few instances, colour blindness has been thought to be associated with lack of progress. The children in the metropolitan area are screened with either AOR isochromatic plates, Ishihara tests, or both. It is hoped to extend this screening to country areas. Severe colour vision defects are notified to parents and teachers, while milder cases are recorded only.

The other disabilities conform to the pattern of previous years, with no significant variation, and are given in Table II.

COMMUNICABLE DISEASES IN SCHOOL CHILDREN

In school children, upper respiratory tract infection is still the major cause of absenteeism, followed by minor outbreaks of the virus diseases, such as chickenpox, measles, and mumps.

There has been an increase in the incidence of infective hepatitis. Of 120 cases reported in primary schools in the metropolitan area, 23 suburbs each reported one case, while 33 cases occurred over 14 suburbs. Mount Gravatt area reported 15 cases, while there were 49 cases at Inala. Health inspectors visited Inala to investigate possible causes for this outbreak. In country areas, 198 cases were reported in school children. Of these, 97 cases were scattered over 45 Shire areas. Winton, Dalby, Redcliffe, and Ipswich reported a total of 56 cases, while Stanthorpe had 45 cases over the 12 months.

The notifications of poliomyelitis have fallen considerably; three cases were notified and tests proved negative. A fourth notification is under investigation. The majority of school children have now received their fourth Salk injection from local authorities.

The Division of Tuberculosis has continued tuberculin testing in schools. Twelve cases of tuberculosis were reported. Following reports of contact with proven cases, special surveys were conducted at Kallangur State School, and at two metropolitan private schools. The results of these tests may be seen in the report from that Division.

SCHOOL DENTAL SERVICE

In this year the number of dental officers has been reduced by the loss of the part-time operator, leaving a strength of 20 dentists. In past years, the dental staff reached a peak of 25 officers, and in view of the increasing number of decayed teeth, more frequent visits and attention are warranted, and to this end, additional dentists are required.

Annual dental examinations of school children is very desirable, and would enable earlier treatment of carious teeth, and so lead to higher standards of dental fitness.

Where permanent hospital dental clinics are established, the School Dental Services covers schools beyond a 15-mile radius of the clinics. Although more hospital clinics are operating, opportunities to speed up itineraries are offset by increasing school populations.

Comparisons over the past eleven years are shown in Table LXX. The figures show a higher rate of examinations with an increased number of carious teeth being detected and treated.

Comparison of records over the past ten years show that the number of sound mouths has fallen from 29 per cent. to 21·2 per cent. There was a slight decrease in the number of children seen and treated, while the number of operations increased 10 per cent.

In primary schools, over the past 12 months extractions decreased by 20 per cent. while fillings increased by 13 per cent., i.e., there is an increase from 2·3 fillings per extraction to 3·2 fillings per extraction, while "other treatments" have increased considerably by over 100 per cent. There are fewer unsaveable teeth. The increase in "other treatments" is partly due to adopting standard methods of classification.

These figures stress the need for early inspections and treatment in the early stages. In School Dental Services, the emphasis is on preventive treatment, together with talks to emphasize oral cleanliness and the necessity for frequent inspections. Parents are becoming more dentally conscious as commercial publicity continues to stimulate awareness of oral hygiene. The School Dental Services must strive towards more frequent inspections by increasing its strength so that all primary schools are seen at least annually.

During the year, a high-speed air-rotor portable dental engine was purchased and thoroughly tested by an experienced dental officer. The one-piece unit was most satisfactory in use, but raised minor transport difficulties, (cylinders had to be drained). The manufacturers overcame this complication by dividing the apparatus to an operating unit and a separate compressor. It was then fully portable, even in a standard vehicle. Nine more similar two-piece units have been approved, and these should enable an improved service to be effected.

Two more official vehicles were purchased for school dentists, and two vehicles were replaced. Many new medical rooms enabled dentists to work under excellent conditions, in marked contrast to many schools where only an open verandah is used, often under adverse conditions. It is hoped to convert the rail dental clinics to 240-volt generation during the long vacation which will enable the use of the high-speed air-rotor units.

GENERAL

It has been decided to include visits to public health services in the curriculum for fourth year nurses, and a number of nurses from Repatriation General Hospital, Greenslopes, attended a school to observe the work done by school health sisters, who capably conducted this period of instruction. These visits will increase considerably and extend to include country training hospitals.

Studies of weights and heights of school children relative to age, also to seasonal influences, have been commenced.

SALK VACCINATION

School Health Services continued to distribute Salk Vaccine to local authorities and private practitioners in the same manner, and the fourth injection has been given. Local authorities have continued to visit schools, and most school children, particularly metropolitan, have received four injections.

Finally, liaison with the Education Department continues to be pleasant and satisfactory, and in particular, with head teachers, who are very co-operative in completing returns, and also when approached in regard to specific matters such as surveys of children. When a school lacks a standard medical room, the installation of an electric light and one power point for medical and dental needs has been approved.

TABLE LXVI

Showing Details of the Number of Schools Visited by School Health Sisters, Children Examined, and Defects Found

Particulars	Metropolitan	Country	Total
Schools Visited	84	905	989
Children Examined	37,130	75,353	112,483
Children Examined by a School Medical Officer	5,675	1,213	6,978
Children with Defects Requiring Notification	1,615 (4·1%)	3,387 (4·7%)	5,002 (4·4%)
Percentage of Parents who sought Medical Attention within two months of Advice	82·66%	83·68%	83·3%

TABLE LXVII

Giving Details of Apparent Defects Notified

Defect	Metropolitan	Country	Total
Hearing Loss	105	466	571
Defective Vision	891	1,664	2,555
Defective Vision %	2·4%	2·2%	2·27%
Other Eye Defects	230	339	569
Infected Tonsils	169	380	549
Scrotal and Groin Swellings ..	64	191	255
Postural Defects	21	92	113
Lower Limb Defects	65	107	172
Cardiac Defects	33	2	35
Other Defects	133	452	585

TABLE LXVIII

Details of School Dental Examinations

Number of children examined	30,900
Number notified for professional attention	7,346
Number of children under regular dental care—	
Clinic	552
School Dental Officer	8,554
Private Dentist	11,108
Number with sound mouths—	
Natural	1,475
Operatively restored	6,329
Carious permanent teeth (saveable) ..	39,774
Carious permanent teeth (unsaveable) ..	4,768
Carious temporary teeth	37,049
Permanent teeth lost or extracted ..	13,525
Six year molars extracted	10,902
Permanent teeth filled	65,820
Temporary teeth filled	18,111
Percentage of children with dirty mouths	8·7
Total number of defective permanent teeth	45,306
Average number of defective permanent teeth, per child	1·4

TABLE LXIX

Total Dental Treatment

Number of schools visited	470
Number of children examined	30,900
Number of children treated	11,358
Number of extractions	10,100
Number of fillings	32,673
Number of other treatments	26,362
Number of operations	66,630

TABLE LXX

Comparisons of Dental Activities 1951–62

—	1952	1955	1958	1961	1962
Number of Dental Officers including C.D.O.	25	22	22	21	20 plus 1 part time
Children examined	40,133	22,446	24,770	31,443	30,470
Children treated	26,786	10,039	9,511	12,699	10,929
Carious teeth (temporary)	48,524	28,780	29,321	38,279	37,049
Carious teeth (permanent)	51,413	32,307	35,892	34,572	45,010
Total carious teeth	99,937	61,087	65,213	72,851	82,059
Average carious teeth per child	2·4	2·7	2·6	2·3	2·7

DIVISION OF MENTAL HEALTH

Director of Mental Hygiene: B. F. R. STAFFORD, M.B., B.S. (Melb.), A.B.P.S.

Deputy Director of Mental Hygiene: G. S. URQUHART, M.B., B.S. (Qld.), D.P.M. (Melb.)

Medical Superintendent, Brisbane Mental Hospital: C. R. BOYCE, M.B., Ch.M. (Syd.)

Medical Superintendent, Toowoomba Mental Hospital: J. H. B. HENDERSON, M.B., B.S. (Syd.)

Medical Superintendent, Ipswich Mental Hospital: R. A. ATHERTON, L.R.C.P. (Edin.), L.R.C.S. (Edin.), L.R.F.P.S. (Glasgow)

Psychiatrist, Psychiatric Clinic: J. A. HEDE, M.B., B.S. (Melb.), D.P.M. (Melb.)

Visiting Medical Officer, Mosman Hall, Charters Towers: I. CSEREY, M.B., B.S. (Melb.)

Superintendent, Epileptic Home: W. HENRY

Administration Officer: A. C. MCALLISTER, B.Com.

"THE MENTAL HEALTH ACT OF 1962"

The policy of integrating psychiatric services was advanced by the enactment of *"The Mental Health Act of* 1962." This Act and essential Regulations will come into force on the first day of July, 1963.

The chief features of *"The Mental Health Act of* 1962" is that it enables all patients suffering from mental illness to be treated in any hospital that is willing to admit and treat these patients.

Emphasis is placed on informal admissions.

Generally speaking, legislation is the expression of public attitudes and pressures. Since the passing of the Act it has become very evident that the Act is expressing public attitudes and even practices. Several important provincial general hospitals have advised that they have been nursing and treating psychiatric patients in the ordinary wards of their hospitals. These hospitals have abandoned the seclusion treatment and cells. Perhaps in the first place because patients on modern chemotherapy need constant nursing care and in the second place because even the one time uncontrollable and turbulent patient is controlled by chemotherapy in 24 to 48 hours and then can be nursed with stabilising doses amongst the other patients until the time comes for discharge.

It has been the practice for some years now to admit mental hospital patients in need of specialised medical or surgical care to the appropriate general hospital. It has been found that at least three-quarters of these patients can be nursed and treated in the ordinary wards of the general hospital.

The problem arises as to whether the general hospitals have sufficient accommodation to care for the psychiatric cases that one time had to be admitted to mental hospitals. Queensland is fortunate in that the beds in general hospitals are in a greater ratio to the population than in most countries. There is in Queensland, as elsewhere, the trend for shorter hospitalization which enables a greater turnover of patients and, in consequence, more beds available.

It is generally accepted that psychiatric patients must be returned to the community as soon as they can satisfactorily adjust to social and economic stresses. This does not necessarily imply an academic cure of their psychiatric conditions, but such an amelioration of symptoms as to enable care as inpatients to cease to be essential.

The policy of integration requires that facilities must be provided for inpatient, outpatient, day hospital, and night hospital services as obviously many of these patients will require treatment over an extended period, but not necessarily as inpatients.

In the metropolitan area, Lowson House at the Brisbane General Hospital is being re-organised and a new outpatient block is in the process of construction. The completion of this plan will see the disappearance of Wards 14 and 16 for use for psychiatric services.

It has been approved that the medical staff available for psychiatric treatment will be increased so as to provide more time for psychiatric interviews and psychotherapeutic sessions. In addition, staff will be available to make effective assessment of patients presenting for diagnosis and treatment.

NEURO-PSYCHIATRIC HOSPITAL, CHERMSIDE

The neuro-psychiatric hospital at Chermside is expected to be completed by the end of October, 1963. This hospital is envisaged as a Metropolitan and State facility to care for the longer term treatment cases. At present it would appear necessary to cater for those patients recovering within 3 to 5 months. It can be expected that with intensive treatment that will be available at Chermside the period of inpatient treatment will be reduced in the case of many of the patients.

In addition to providing a service for Brisbane General Hospital, Princess Alexandra Hospital, and the general hospitals without psychiatric facilities, this hospital will admit those patients who, on admission to mental hospitals (now special hospitals), were too difficult for general hospitals but have made satisfactory social adjustment in the special hospital.

CONTROL OF ESTATES OF MENTALLY ILL PERSONS

In accordance with *"The Mental Hygiene Acts,* 1938 *to* 1961," the Public Curator assumed control of the estates of all patients admitted to mental hospitals, whether voluntary or certified patients. *"The Mental Health Act of* 1962" requires that before the Public Curator assumes control of the estate of a patient the medical practitioner caring for the patient must issue a certificate to the Public Curator to the effect that the patient is mentally ill and incapable of managing his affairs. This undoubtedly adds to the responsibility of medical practitioners to see that the estates of patients are protected. However, in this field the medical practitioner can receive valuable assistance from social workers. These officers are specially trained and experienced in investigating and assessing the financial and economic condition of patients. The number of social workers available is very limited.

PSYCHIATRIC UNITS IN GENERAL HOSPITALS

The progress of the psychiatric units in general hospitals, other than the Brisbane General Hospital, has been disappointing. It will be about 9 months before a start is made on a psychiatric unit at the Princess Alexandra Hospital.

A psychiatrist has been secured for Rockhampton, but there is need for a psychiatric unit there. Psychiatric units in the provincial cities were to be adapted from the Townsville unit which was planned, but, owing to difficulties in securing a suitable site the construction of this unit has not been commenced as yet.

Toowoomba General Hospital is in need of psychiatric facilities, otherwise acute and longer term patients will continue to be admitted to the Toowoomba Mental (Special) Hospital.

The Senate of the Queensland University has decided to establish a Chair of Psychiatry. This is an important advance and it can be expected that the Professor will provide a much needed focal area for the academic and teaching aspects of psychiatry. Integration of psychiatry has emphasised the importance of the general practitioner, especially in the supportive treatment of the socially adjusted patient.

It is important to note that the Queensland Branch of the College of General Practitioners, the Queensland Branch of the Australasian Association of Psychiatrists, and the Mental Health Division of the Department of Health and Home Affairs have combined to organise a series of lectures. These lectures will doubtless interest General Practitioners in psychiatry and from their ranks it is expected to recruit clinical assistants to help in the psychiatric teams of the Brisbane General Hospital, Chermside, and later the Princess Alexandra Hospital.

AMENDMENTS TO PRISONS ACT

"The Mental Health Act of 1962" made some very important amendments to *"The Prisons Act of* 1958." The chief object of these amendments is to establish complete psychiatric services within the Prisons Department. Psychiatric services have been established in Prisons elsewhere, but what is envisaged is a complete mental hospital service within the Prison, controlled by the Prisons Department and assisted by the Mental Health Division.

Generally, *"The Mental Health Act of* 1962" makes the detention of psychiatric patients easier than the previous Act. Therefore, additional safeguards have been provided.

MENTAL HEALTH REVIEW TRIBUNAL

A Mental Health Review Tribunal consisting of an ex-judge of the Supreme Court as Chairman and two well known and experienced members has been appointed. The Tribunal will be mainly concerned with the need for detention. The concept is that a patient may not need to be detained solely on account of mental illness but in addition because he was a danger to himself or the community. The Tribunal has wide statutory powers of obtaining expert evidence and examinations. Other special safeguards are the statutory creation of authorised persons who can act in the patient's interest in the place of a relative, or where no relative exists or is known, and another safeguard is the stautory periodic medical review of patients; and finally the right of the nearest relative to order the discharge of a patient provided that the nearest relative has given 72 hours' notice in writing of his intention to order the discharge but if, in the opinion of the responsible medical practitioner, the patient if discharged, would be likely to act in a manner dangerous to other persons or himself, then the order shall be of no effect and no further order can be made by the nearest relative or authorised person for a period of 6 months from the date of the report of the responsible medical practitioner.

CARE OF MENTALLY SUBNORMAL PERSONS

The mentally subnormal continue to be probably the greatest institutional problem. This problem consists of the increasing number of mentally subnormal (the increase has a positive relation to the increasing population and provision of better facilities).

The Department is very appreciative of the Association for the Welfare of the Mentally Subnormal and works exceptionally closely with the Association. There are three phases of training in respect to the subnormals—

1. *Infancy.*—A diagnostic and treatment centre at Chermside. This unit commences social treatment and "education". It has attracted interest throughout Australia and commendary expressions of highly placed administrative officers are convincing proof that Queensland is tackling this pre-school problem correctly.

2. *School Age.*—From the special unit at Chermside two classes of children are found—

(*a*) Those whose brain damage is so severe that they cannot possibly be trained in the most rudimentary things; and

(*b*) Those who are able to respond to special training.

A specially experienced kindergarten teacher is being sought for Chermside.

A school has been constructed at Farm Colony, Wacol. Five teachers trained at the expense of the Department have been appointed there. These teachers are without doubt dedicated people and since the time they have taken up duty there has been a marked improvement in the children's general behaviour and knowledge. Unfortunately these five teachers can only cater for approximately 40 per cent. to 50 per cent. of the children. Discussions are taking place with the Department of Public Works to build a school of 10-12 classrooms. Also, unfortunately, there are as yet no special teachers at Ipswich or Toowoomba. Although these hospitals may tend to care for the less promising mental subnormal, experience has shown that psychological tests are an excellent guide, but the emotional stability of the child is more important and this can be best assessed by trial.

3. *The post-school age.*—This is the epoch in the life of the mentally subnormal that gives the greatest anxiety. Unless facilities exist for a training regime that covers the whole life of the mentally subnormal, the Infancy and School training will have been to a great extent wasted. With the sudden cessation of training, the mentally subnormal frequently develops a "pseudo institutional dementia". This is usually due to traditional additional attitudes and *must* be avoided.

What is required is post-school training and the introduction of these patients to vocational activities suited to their capabilities.

Discussions are in progress with the Association for the Welfare of the Subnormal (who are faced with the same problem) to develop sheltered workshops, and other organised vocational occupations. The problem of the subnormal *must* be viewed as the total life problem of the individual. It will fail if specialised care is confined to only the early epochs of life.

The Department sincerely appreciates the efforts of the staff caring for the subnormals, the help and co-operation of the Association for the Mentally subnormal and the generous help of relatives and friends deeply interested in these patients.

GERIATRICS

Owing to the lack of assessment facilities for confused geriatric patients (old age patients), far too many are certified and admitted to mental hospitals. These patients are very well cared for in the mental hospitals but the Department believes it is wrong to send them there only because an assessment facility is not available. It is not satisfactory to do all this work in a hospital such as the Brisbane General Hospital which must cope with a large turnover of patients. It is intended to establish a geriatric assessment centre for confused geriatric cases at Chermside, in association with a geriatric unit similar to the excellent geriatric unit at Princess Alexandra Hospital.

Otherwise, admissions to general hospital annexes and Eventides are keeping the problem of the aged patient from getting out of hand. However, it is emphasised that the Geriatric Assessment Unit for the confused aged is a most important project.

THE MENTAL HOSPITALS (SPECIAL HOSPITALS)

Appreciation is extended to the number of important interstate visitors who visited during the year and expressed their admiration of the Queensland Mental Health Service.

The Brisbane Mental (Special) Hospital

The policy of open wards and semi-open wards has advanced. There is still some obvious insecurity amongst the staff. However, with careful classification in the first place this will be overcome. The garden and grounds have been kept in good condition. The extension of A.C. electric current to more wards has enabled the installation of more efficient equipment.

The Wacol Branch of the Brisbane Prison has been established near the hospital grounds. This has enabled the Prison to supply the hospital needs for milk and, in consequence, the dairy herd will be unnecessary. This will enable more horticulture to be undertaken.

A feature of present-day staff patient relationships has been the formation of staff clubs which include patients. These clubs have mostly taken the form of Sports Organisations. The Federation for Mental Health and its affiliated Associations have continued with their valuable help to the patients. It is understood that their main project is the establishment of an After-Care Hostel for discharged patients. This is a real need and managed by Federation Association for Mental Health or one of its affiliated bodies can be expected to establish a better rapport with the community than would be possible with a Government facility. The Association can be assured of sympathetic interest from the Division of Mental Health.

The Poinciana Festival was again a great success.

The resident chaplains continue to supply a real need to the patients and one of their achievements is keeping patients closer to their families and normal social life.

Wacol Pavilion functions well. It is noticeable that with the passage of time many of the patients are ageing.

Toowoomba Mental (Special) Hospital

The most noteworthy event of the year was the Official Opening of Gowrie Hall in December, 1962. This is a special unit for patients in mental hospitals suffering from chronic chest conditions.

The percentage of voluntary patients admitted to Toowoomba Special Hospital is still very high and this alone emphasises the need for full psychiatric facilities at the Toowoomba General Hospital.

The open hospital policy at Toowoomba Special Hospital has extended during the year, and equally important is the energetic manner in which this hospital is improving the conditions under which the patients live and sleep.

Toowoomba Special Hospital is constructed in such a manner that it would be very difficult and unsatisfactory to excise portions for other purposes. At this stage it is envisaged that this hospital must become the main hospital for very long stay psychiatric patients. Brisbane Special Hospital will have a greatly reduced admission of psychiatric patients but it can be predicted that the total population will be much the same as at present, but comprised of multiple continuous institutions.

Mosman Hall, Charters Towers

During the fiscal year Fraser House was opened. This ward is equipped with modern facilities and is eminently suited for an open ward for the socially adjusted patient.

It is taking some time for the staff to realise that a mentally ill patient can be socially adjusted and most trustworthy. This attitude has been found in all places where open hospitals or wards have been instituted. It results from staff insecurity due, in the main, to the traditional administrative and public insistence on custodial care of *all* mentally ill people. Mosman Hall, as elsewhere, will find that most patients act co-operatively when administrative "aggression" is used only when required.

Thanks are extended to friends and visitors and to the Clergy for their valuable help during the year.

Ipswich Mental (Special) Hospital

During the year "Karrala House" was established. This facility is administered by the Director, State Children Department, and managed by the Medical Superintendent and seconded nursing staff.

It provides for girls who are wards of the State Children Department and have proved too difficult to care for in the Industrial Schools.

During the few weeks Karrala House has been functioning it has shown promise of effectively supplying a real need. Emphasis is placed on social and vocational training.

Male Ward 3 has reached the stage where the additional accommodation is occupied. The original building is in the process of extensive renovations.

Extensive renovations and repairs have been made to many sections of the hospital.

Appreciation is extended to many friends of this hospital who have provided entertainments and outings for patients.

As in past years the various religious denominations have provided for the spiritual needs of the patients.

Epileptic Home

The Epileptic Home is largely a Home for reasonably behaved mentally subnormal persons who happen to suffer from epilepsy. It is administered under the Charitable Institutions Act and highlights the anomaly of admitting the mentally subnormal to special hospitals (mental hospitals). On admission and whilst inmates of a mental hospital, these folk lose social benefits (pensions, &c.) and are not eligible for social benefits.

It is more than apparent that the subnormals should be administered by an Act—the Charitable Institutions Act or a similar Act.

The general health of the patients has been good.

An important feature of the Home is the School. The present scholars are probably not able to absorb a normal curriculum (present-day anti-epileptic drugs have enabled practically all intellectually normal epileptics to attend ordinary schools). Most of the inmates are responsive to a training type of education. This school continues to provide a most important service. Some children from the nearby Special Hospital attend the school.

STAFF CHANGES

During the year the following Staff changes occurred throughout the Hospitals.

Medical staff appointed during the year included Doctors Kenny, Wilson, and Daniel to the Brisbane Mental Hospital and Dr. R. Gill to Toowoomba Mental Hospital. Among those who resigned were Doctors R. Apel, M. I. Lamb, J. Cominos, and N. Hamilton.

Rev. L. Vickery and Rev. E. Bradley completed their terms as Chaplains and were replaced by Rev. J. Whimp and Rev. Harrison respectively.

Brisbane Mental Hospital Chief Male Nurse Constance retired on 30th June, 1962, and J. R. Howard was appointed to this position.

General Foreman of Brisbane Mental Hospital, C. Harnell, retired on 15th December, 1962, and his duties were taken over by Allan Johnson from Toowoomba Mental Hospital.

Head Male Nurse G. A. Why retired on 30th June, 1962, and Head Male Nurse G. J. Coogan on 31st December, 1962.

Matron M. J. Murphy retired from the Ipswich Mental Hospital and the vacancy thus created was filled by Matron G. M. Egan who was transferred from the Brisbane Mental Hospital.

Assistant Matron I. Trinder was appointed Matron, Eventide Home, Charters Towers. Assistant Matrons M. P. McGregor and D. E. Cutler were appointed to the Ipswich Mental Hospital.

TABLE LXXI

Patient Population

—	Patients Resident at 30th June, 1962			Patients Resident at 30th June, 1963		
	Females	Males	Total	Females	Males	Total
Brisbane Mental Hospital	679	1,123	1,802	716	1,097	1,813
Toowoomba Mental Hospital	507	517	1,024	468	569	1,037
Ipswich Mental Hospital	282	324	606	319	318	637
Mosman Hall, Charters Towers	..	169	169	..	201	201
Totals	1,468	2,133	3,601	1,503	2,185	3,688

TABLE LXXII

QUEENSLAND MENTAL HOSPITALS

Showing Admissions, Re-admissions, Discharges and Deaths, during the Year ended 30th June, 1963

	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
On the Books of the Hospitals on 1st July, 1962	**1,317**	**914**	**2,231**	**536**	**545**	**1,081**	**335**	**327**	**662**	**191**	**2,379**	**1,786**	**4,165**
Admitted for the first time — certified	307	331	638	27	39	66	24	2	26	68	426	372	798
voluntary	100	63	163	65	75	140	16	10	26	42	223	148	371
Re-admitted — certified	119	184	303	16	12	28	1	..	1	7	143	196	339
voluntary	66	79	145	45	44	89	1	2	3	1	113	125	238
Total Admissions	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746
Totals on Books and Admissions—All Hospitals	**1,909**	**1,571**	**3,480**	**689**	**715**	**1,404**	**377**	**341**	**718**	**309**	**3,284**	**2,627**	**5,911**
Transferred from Brisbane	..	..	..	52	2	54	2	46	48	22	76	48	124
Transferred from Toowoomba	2	3	5	..	..	..	..	..	..	..	2	3	5
Transferred from Ipswich	14	4	18	20	2	22	..	..	..	..	34	6	40
Transferred from Mosman Hall	..	..	..	..	..	..	..	..	..	..	..	..	..
***Total number under care during the year**	**1,925**	**1,578**	**3,503**	**761**	**719**	**1,480**	**379**	**387**	**766**	**331**	**3,396**	**2,684**	**6,080**
†Discharged—													
Recovered	12	27	39	39	72	111	8	1	9	52	111	100	211
Relieved	380	480	860	15	52	67	..	1	1	38	433	533	966
Not Improved	26	10	36	28	29	57	7	48	55	7	68	87	155
Voluntarily left	100	52	152	65	24	89	2	..	2	4	171	76	247
Total Discharges	518	569	1,087	147	177	324	17	50	67	101	783	796	1,579
Died	88	73	161	29	22	51	4	7	11	16	137	102	239
Total Number Discharged and Died	**606**	**642**	**1,248**	**176**	**199**	**375**	**21**	**57**	**78**	**117**	**920**	**898**	**1,818**
Transferred to Brisbane	..	..	..	2	3	5	14	4	18	..	16	7	23
Transferred to Toowoomba	52	2	54	..	..	..	20	2	22	..	72	4	76
Transferred to Ipswich	2	46	48	..	..	..	..	..	..	..	2	46	48
Transferred to Mosman Hall	22	..	22	..	..	..	..	..	..	..	22	..	22
Total number discharged, died, &c., during year	682	690	1,372	178	202	380	55	63	118	117	1,032	955	1,987
Remaining on Books of Hospitals on 30th June, 1963	**1,243**	**888**	**2,131**	**583**	**517**	**1,100**	**324**	**324**	**648**	**214**	**2,364**	**1,729**	**4,093**
Average Number Daily Resident	**1,113**	**729**	**1,842**	**533**	**485**	**1,018**	**330**	**283**	**613**	**196**	**3,172**	**1,497**	**3,669**
Number on leave of absence on 30th June, 1963	146	172	318	14	49	63	6	5	11	13	179	226	405
Proportion of Mentally Sick to each 1,000 of population as at 30th June, 1963											2·95	2·17	2·61
Proportion of Admissions per 10,000 of population for year ended 30th June, 1963											11·35	10·56	11·14

* These totals include interhospital transfers.

† Includes Section 49 Discharges as shown—

	Brisbane Males	Brisbane Females	Brisbane Totals	Toowoomba Males	Toowoomba Females	Toowoomba Totals	Ipswich Males	Ipswich Females	Ipswich Totals	Mosman Hall Males	Totals Males	Totals Females	Totals Totals
Recovered	..	..	..	3	7	10	..	..	..	..	3	7	10
Relieved	2	2	4	2	9	11	..	..	..	2	6	11	17
Not Improved	4	1	5	1	..	1	1	1	2	..	6	2	8
	6	3	9	6	16	22	1	1	2	2	15	20	35

TABLE LXXIII

ADMISSIONS, DISCHARGES, AND DEATHS, WITH THE PROPORTIONS OF RECOVERIES AND DEATHS PER CENT. DURING THE YEAR ENDED 30TH JUNE, 1963

—	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
Total Admissions	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746
*Discharged—													
Recovered	13	27	40	76	89	165	8	1	9	52	149	117	266
Relieved	456	526	982	39	56	95	..	1	1	41	536	583	1,119
Not Improved	49	16	65	32	32	64	9	48	57	8	98	96	194
Died	88	73	161	29	22	51	4	7	11	16	137	102	239
Average Number Daily Resident	1,113	729	1,842	533	485	1,018	330	283	613	196	2,172	1,497	3,669
Percentage of Recoveries on Admissions	2·2	4·1	3·2	49·67	52·35	51·08	19·05	7·14	16·07	44·07	16·46	13·91	15·24
Percentage of Patients Relieved on Admissions	77·03	80·21	78·62	25·49	32·35	29·47	..	7·14	1·79	34·75	59·23	69·32	64·09
Percentage of Deaths on Average Number Resident	7·98	10·01	8·74	5·44	4·53	5·01	1·21	2·47	1·79	8·17	6·31	6·81	6·51

*For the purposes of this Table patients discharged under section 49 (3) and voluntarily left have been classified under headings shown.

TABLE LXXIV

FORMS OF MENTAL DISORDERS IN PATIENTS ADMITTED DURING THE TWELVE MONTHS ENDED 30TH JUNE, 1963

—	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall Charters Towers	Totals		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Males	Females	Totals
300 *Schizophrenic disorders—*													
300·0 Simple type	34	68	102	15	12	27	4	1	5	17	70	81	151
300·1 Hebephrenic type	31	31	62	11	6	17	..	..	..	..	42	37	79
300·2 Catatonic type	10	11	21	3	..	3	..	..	..	..	13	11	24
300·3 Paranoid type	88	79	167	2	7	9	8	..	8	10	108	86	194
300·4 Acute schizophrenic reactions	3	1	4	..	..	..	..	..	..	1	4	1	5
300·5 Latent schizophrenia	4	4	8	..	..	..	..	..	..	..	4	4	8
300·6 Schizo-affective psychosis	5	9	14	..	1	1	1	..	1	..	6	10	16
300·7 Other unspecified	9	18	27	..	..	..	..	..	..	..	9	18	27
301 *Manic-depressive reaction—*													
301·0 Manic and circular	11	18	29	10	7	17	3	..	3	10	34	25	59
301·1 Depressive	7	11	18	16	51	67	1	..	1	2	26	62	88
301·2 Others	1	2	3	..	1	1	..	..	..	..	1	3	4
302 Involutional Melancholia	8	6	14	2	6	8	..	..	..	..	10	12	22
303 Paranoia and Paranoid states	10	14	24	5	5	10	..	..	..	..	15	19	34
304 Senile Psychosis—65 years of age and over	63	77	140	11	25	36	..	1	1	6	80	103	183
305 Pre-senile psychosis	5	2	7	..	..	..	..	..	..	1	6	2	8
306 Psychosis with cerebral arterio-sclerosis	12	14	26	2	..	2	1	..	1	5	20	14	34
307 Alcholic psychosis	17	2	19	5	..	5	..	..	..	14	36	2	38
308 *Psychosis of other demonstrable etiology—*													
308·1 Resulting from epilespy and other convulsive disorders	1	..	1	3	2	5	..	..	..	..	4	2	6
308·2 Other	14	2	16	1	1	2	..	..	..	1	16	3	19
309 Other and unspecified psychosis—under 65 years of age	3	10	13	..	..	..	..	..	..	1	4	10	14
310 Anxiety reaction without mention of somatic symptoms	18	34	52	1	12	13	..	..	..	..	19	46	65
311 Hysterical reaction without mention of anxiety reaction	2	12	14	..	..	..	..	..	..	..	2	12	14
312 Phobic reaction	..	..	..	..	..	..	..	..	..	..	..	..	..
313 Obsessive compulsive reaction	2	9	11	..	1	1	..	..	..	..	2	10	12
314 Neurotic depressive reaction	25	60	85	9	8	17	..	..	..	2	36	68	104
315													
316 *Psychoneurosis with somatic symptoms affecting digestive system—*													
316·1 Irritability of colon of psychogenic origin	1	..	1	..	..	..	..	..	..	..	1	..	1
316·2 Gastric neurosis	2	1	3	..	..	..	..	..	..	..	2	1	3
317 *Psychoneurosis with somatic symptoms affecting other systems—*													
317·3 Other cutaneous neuroses	1	..	1	..	..	..	..	..	..	..	1	..	1
318 *Psychoneurotic disorders, other, mixed and unspecified—*													
318·0 Hypochondriac reaction	3	..	3	1	..	1	..	..	..	..	4	..	4
318·3 Asthenic reaction	..	2	2	..	1	1	..	..	..	..	..	3	3
318·4 Mixed	1	7	8	1	..	1	..	..	..	..	2	7	9
318·5 Other and unspecified types	2	2	4	..	2	2	..	..	..	..	2	4	6
320 *Pathological personalty—*													
320·0 Schizoid personality	..	1	1	..	..	..	1	..	1	..	1	1	2
320·2 Cyclothymic personalty	..	1	1	..	..	..	..	..	..	..	..	1	1
320·3 Inadequate personality	1	3	4	1	..	1	..	..	..	2	4	3	7
320·4 Antisocial personality	8	11	19	..	1	1	1	..	1	1	10	12	22
320·5 Asocial personality	4	3	7	..	..	..	..	..	..	..	4	3	7
320·6 Sexual deviation	2	..	2	..	..	..	1	..	1	..	3	..	3
320·7 Other and unspecified	..	1	1	..	..	..	..	..	..	..	..	1	1
321 *Immature personality—*													
321·0 Emotional instability	2	3	5	4	..	4	..	..	..	..	6	3	9
321·1 Passive dependency	2	..	2	..	1	1	..	..	..	..	2	1	3
321·2 Aggressiveness	1	..	1	..	..	..	..	..	..	..	1	..	1
321·5 Other and unspecified	..	2	2	..	..	..	..	..	..	..	..	2	2
322 *Alcoholism—*													
322·0 Acute	2	3	5	..	..	..	..	..	..	27	29	3	32
322·1 Chronic	67	20	87	42	7	49	1	..	1	9	119	27	146
322·2 Unspecified	5	..	5	..	..	..	..	..	..	..	5	..	5
323 Other drug addiction	19	12	31	1	1	2	..	..	..	..	20	13	33
324 Primary childhood behaviour disorders	2	2	4	..	..	..	..	..	..	..	2	2	4
325 *Mental Deficiency—*													
325·0 Idiocy	6	3	9	..	..	..	1	6	7	2	9	9	18
325·1 Imbecility	15	13	28	2	2	4	7	3	10	5	29	18	47
325·2 Moron	14	17	31	3	..	3	6	1	7	..	23	18	41
325·3 Borderline intelligence	10	5	15	..	..	..	..	..	..	..	10	5	15
325·4 Mongolism	7	5	12	..	..	..	5	..	5	..	12	5	17
325·5 Other and unspecified types	5	8	13	..	..	..	1	2	3	..	6	10	16
326 *Other and unspecified character, behaviour and intelligence disorders—*													
326·3 Active situational maladjustment	..	1	1	..	1	1	..	..	..	..	..	2	2
326·4 Other and unspecified	1	..	1	..	2	2	..	..	..	..	1	2	3
345 Multiple sclerosis	1	..	1	..	..	..	..	..	..	..	1	..	1
353 *Epilepsy—*													
353·0 Petit mal	..	1	1	1	..	1	..	..	..	..	1	1	2
353·1 Grand mal	8	11	19	..	2	2	..	..	..	1	9	13	22
353·2 Status epilepticus	..	3	3	..	..	..	..	..	..	..	..	3	3
353·3 Other and unspecified	5	3	8	1	2	3	..	..	..	..	6	5	11
355 Other diseases of the brain	6	3	9	..	1	1	..	..	..	1	7	4	11
794 Senility without mention of psychosis	5	16	21	..	2	2	..	..	..	..	5	18	23
025 Neurosyphilis with paresis	1	..	1	..	..	..	..	..	..	..	1	..	1
Totals	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746

TABLE LXXV

Causes of Deaths which occurred during Period ended 30th June, 1963

Statistical Classification	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Males	Females	Total
Infective and parasitic diseases—													
002 Pulmonary tuberculosis ..	2	..	2	..	..	..	..	..	..	..	2	..	2
053 Septicaemia	..	1	1	..	..	..	..	..	..	..	..	1	1
Neoplasms—													
151 Malignant neoplasm of stomach	..	..	..	..	1	1	..	..	..	..	..	1	1
153 Malignant neoplasm of large intestine, except rectum ..	1	..	1	..	1	1	..	1	1	..	1	2	3
161 Malignant neoplasm of larynx	..	..	..	..	..	..	..	..	..	1	1	..	1
170 Malignant neoplasm of breast	..	..	..	..	1	1	..	..	..	..	..	1	1
193 Malignant neoplasm of brain and other parts of the nervous system	..	..	..	..	1	1	..	..	..	..	..	1	1
Allergic, endocrine system, metabolic and nutritional systems—													
270 Disorders of pancreatic internal secretion—other than diabetes mellitus	..	..	..	1	..	1	..	..	..	..	1	..	1
Diseases of the blood and blood forming organs—													
290 Pernicious and other hyperchronic anaemias	..	..	..	..	1	1	..	..	..	..	..	1	1
298 Diseases of spleen	1	..	1	..	..	..	..	..	..	..	1	..	1
Mental, psychoneurotic and personality disorders—													
304 Senile psychosis	1	3	4	..	..	..	..	..	..	..	1	3	4
Diseases of the Nervous System and Sense organs—													
331 Cerebral haemorrhage ..	3	1	4	..	1	1	..	..	..	..	3	2	5
332 Cerebral embolism and thrombosis	4	4	8	..	..	..	..	..	..	..	4	4	8
334 Other and ill defined vascular lesions affecting central nervous system	7	2	9	..	..	..	..	..	..	1	8	2	10
353 Epilepsy..	1	..	1	..	..	..	..	..	..	..	1	..	1
Diseases of the circulatory system—													
410 Diseases of the mitral valve ..	..	1	1	..	..	..	..	1	1	..	..	2	2
420 Arteriosclerotic heart disease, including coronary disease	2	4	6	2	2	4	2	..	2	1	7	6	13
421 Chronic endocarditis not specified as rheumatic	..	..	..	1	..	1	..	..	..	..	1	..	1
422 Other myocardial degeneration	5	18	23	9	8	17	..	2	2	..	14	28	42
431 Acute myocarditis not specified as rheumatic	..	..	..	1	1	2	..	..	..	..	1	1	2
434 Other and unspecified diseases of heart	26	12	38	..	..	..	..	..	..	5	31	12	43
450 General arteriosclerosis ..	..	..	..	1	1	2	..	..	..	..	1	1	2
454 Arterial embolism and thrombosis	..	..	..	6	1	7	..	..	..	..	6	1	7
465 Pulmonary embolism and infarction	..	1	1	..	..	..	..	..	..	..	..	1	1
Diseases of the respiratory system—													
490 Lobar pneumonia	..	1	1	..	1	1	..	..	..	..	..	2	2
491 Bronchopneumonia	10	4	14	5	..	5	..	2	2	2	17	6	23
492 Primary atypical pneumonia ..	..	..	..	..	..	..	..	1	1	..	..	1	1
493 Pneumonia other and unspecified	17	11	28	1	2	3	..	..	..	4	22	13	35
522 Pulmonary congestion and hypostatis	2	4	6	..	..	..	..	..	..	..	2	4	6
527 Other diseases of lung and pleural cavity	..	..	..	..	..	..	1	..	1	..	1	..	1
Diseases of the digestive system—													
541 Ulcer of duodenum	1	..	1	..	..	..	..	..	..	..	1	..	1
570 Intestinal obstruction without mention of hernia	..	..	..	..	..	..	..	..	..	1	1	..	1
571 Gastro-enteritis and colitis, except ulcerative, age 4 weeks and over	..	..	..	1	..	1	..	..	..	..	1	..	1
576 Peritonitis	1	..	1	..	..	..	..	..	..	..	1	..	1
583 Other diseases of liver.. ..	1	..	1	..	..	..	..	..	..	..	1	..	1
584 Cholelithiasis	..	..	..	1	..	1	..	..	..	..	1	..	1
Diseases of the Genito-urinary system—													
600 Infections of kidney	1	..	1	..	..	..	..	..	..	..	1	..	1
Congenital malformations—													
752 Congenital hydrocephalus ..	..	..	..	..	..	..	1	..	1	..	1	..	1
Symptoms, senility and ill defined conditions—													
782 Symptoms referable to cardiovascular and lymphatic system	..	3	3	..	..	..	..	..	..	..	..	3	3
794 Senility without mention of psychosis	..	1	1	..	..	..	..	..	..	1	1	1	2
Accidents, poisoning and violence—													
E812 Motor vehicle traffic accident to pedestrian..	..	1	1	..	..	..	..	..	..	..	..	1	1
E921 Inhalation and ingestion of food causing obstruction or suffocation	1	..	1	..	..	..	..	..	..	..	1	..	1
Poisoning by barbituric acids and derivatives	1	1	2	..	..	..	..	..	..	..	1	1	2
Totals	88	73	161	29	22	51	4	7	11	16	137	102	239

TABLE LXXVI

Bodily Health and Condition of Patients Admitted during the Year ended 30th June, 1963

	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
In apparently good health and condition	292	384	676	112	83	195	33	9	42	83	520	476	996
In indifferent health and reduced condition	218	200	418	24	61	85	7	2	9	28	277	263	540
In bad health and exhausted condition	82	73	155	17	26	43	2	3	5	7	108	102	210
Totals	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746

TABLE LXXVII

Birth Places of Patients Admitted During Period ended 30th June, 1963

—	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
Queensland	333	416	749	103	117	220	26	13	39	58	520	546	1,066
Other Australian States—													
New South Wales	66	89	155	21	20	41	3	..	3	22	112	109	221
Victoria	18	24	42	4	7	11	..	..	..	4	26	31	57
South Australia	4	1	5	3	..	3	2	..	2	2	11	1	12
Western Australia	4	2	6	..	..	..	..	..	..	3	7	2	9
Tasmania	6	2	8	1	2	3	..	..	..	1	8	4	12
Northern Territory	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Australia	431	534	965	132	146	278	31	13	44	90	684	693	1,377
New Zealand	2	3	5	3	..	3	1	..	1	..	6	3	9
Pacific Islands and New Guinea ..	2	..	2	..	..	..	1	..	1	..	3	..	3
Great Britain and Ireland	67	64	131	11	16	27	2	1	3	6	86	81	167
Europe (other)	40	32	72	3	1	4	3	..	3	20	66	33	99
Asia—													
China	..	3	3	..	..	..	..	..	..	..	..	3	3
India, Pakistan, Ceylon	1	2	3	..	..	..	..	..	..	..	1	2	2
Other	1	1	2	..	..	..	..	..	..	..	1	1	3
North America	2	..	2	..	..	..	..	..	..	1	3	..	3
Unknown	46	18	64	4	7	11	4	..	4	1	55	25	80
Totals	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746

TABLE LXXVIII

Districts whence Patients were Received during the Year ended 30th June, 1963

—	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
Northern and North-Western	5	29	34	..	2	2	13	2	15	114	132	33	165
Central	38	10	48	..	..	..	2	1	3	1	41	11	52
Southern and South-Western	549	618	1,167	153	168	321	27	11	38	3	732	797	1,529
Totals ..	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746

TABLE LXXIX

General Classification of Occupations of Patients Admitted during the Year ended 30th June, 1963

Occupations	Brisbane Mental Hospital			Toowoomba Mental Hospital			Ipswich Mental Hospital			Mosman Hall, Charters Towers	Totals		
	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Males	Females	Totals
Rural Industries ..	14	..	14	36	..	36	2	..	2	22	74	..	74
Secondary Industries, Trades, &c.—													
Building Construction ..	30	..	30	8	..	8	..	..	..	10	48	..	48
Machinery and Electrical ..	20	1	21	5	..	5	..	..	..	14	39	1	40
Foodstuffs, Meat, &c.	26	5	31	8	..	8	2	..	2	6	42	5	47
Clothing, Retail, &c.	1	12	13	..	..	..	..	..	..	1	2	12	14
Mining	5	..	5	1	..	1	..	..	..	3	9	..	9
Transport	7	..	7	5	..	5	2	..	2	..	14	..	14
Clerical	25	22	47	8	3	11	..	..	..	1	34	25	59
Domestic Employment	2	374	376	..	119	119	..	1	1	..	2	494	496
Private Employment	..	..	..	1	1	2	..	..	..	..	1	1	2
Miscellaneous Employment ..	193	20	213	40	4	44	13	..	13	39	285	24	309
No Occupation, and Pensioners ..	227	198	425	33	30	63	4	..	4	14	278	228	506
Professions	9	10	19	5	6	11	..	..	..	..	14	16	30
Children .. .	33	15	48	3	4	7	18	13	31	..	54	32	86
Unknown ..	..	..	..	..	3	3	1	..	1	8	9	3	12
Totals ..	592	657	1,249	153	170	323	42	14	56	118	905	841	1,746

TABLE LXXX

AGE GROUPS OF PATIENTS WHOSE ADMISSIONS, DISCHARGES OR DEATHS OCCURRED DURING THE YEAR AND THOSE WHO REMAINED ON BOOKS OF HOSPITAL ON 30TH JUNE, 1963

BRISBANE MENTAL HOSPITAL

Age Group	Admissions			Discharges						Deaths			Remaining		
				Recovered			Relieved and Not Improved								
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
3 years and under 4 years	..	1	1	..	..	..	..	..	..	..	1	1	..	..	..
4 years and under 5 years	1	..	1	..	..	..	1	..	1	..	..	..	..	1	1
5 years and under 6 years	1	..	1	..	..	..	..	..	..	..	..	..	1	1	2
6 years and under 7 years	2	3	5	..	..	..	..	..	..	..	..	..	5	4	9
7 years and under 8 years	1	3	4	..	..	..	..	..	..	..	..	..	10	8	18
8 years and under 9 years	..	2	2	..	..	..	..	..	..	1	..	1	5	9	14
9 years and under 10 years	3	1	4	..	..	..	2	1	3	..	..	..	5	8	13
10 years and under 11 years	1	1	2	..	..	..	..	..	..	..	..	..	10	5	15
11 years and under 12 years	6	2	8	..	..	..	3	..	3	..	..	..	13	6	19
12 years and under 13 years	2	..	2	..	..	..	2	..	2	..	..	..	17	7	24
13 years and under 14 years	6	7	13	..	..	..	1	2	3	..	..	..	18	11	29
14 years and under 15 years	5	7	12	..	..	..	1	3	4	..	..	..	13	7	20
15 years and under 16 years	5	7	12	..	..	..	1	3	4	..	..	..	16	9	25
16 years and under 17 years	3	13	16	..	..	..	2	2	4	..	..	..	17	14	31
17 years and under 18 years	12	6	18	..	..	..	7	8	15	..	..	..	14	20	34
18 years and under 19 years	6	8	14	..	..	..	5	5	10	..	..	..	10	15	25
19 years and under 20 years	8	11	19	..	1	1	9	5	14	..	..	..	16	9	25
20 years and under 25 years	36	29	65	1	3	4	34	21	55	1	..	1	65	37	102
25 years and under 30 years	32	36	68	..	1	1	44	34	78	1	..	1	57	31	88
30 years and under 35 years	62	51	113	1	1	2	68	43	111	1	..	1	92	63	155
35 years and under 40 years	61	52	113	3	9	12	49	54	103	..	2	2	129	74	203
40 years and under 45 years	81	89	170	4	2	6	74	65	139	1	3	4	131	127	258
45 years and under 50 years	56	69	125	1	5	6	52	59	111	10	2	12	137	103	240
50 years and under 55 years	48	54	102	..	3	3	24	49	73	7	1	8	124	94	218
55 years and under 60 years	29	43	72	1	1	2	31	47	78	6	2	8	108	81	189
60 years and under 61 years	4	12	16	1	1	2	5	17	22	2	2	4	29	16	45
61 years and under 62 years	2	8	10	..	..	..	4	13	17	..	3	3	14	7	21
62 years and under 63 years	6	13	19	..	..	..	11	8	19	1	1	2	23	12	35
63 years and under 64 years	9	5	14	..	..	..	11	6	17	2	1	3	22	6	28
64 years and under 65 years	5	10	15	..	..	..	9	8	17	..	1	1	15	10	25
65 years and under 66 years	4	7	11	..	..	..	9	9	18	1	..	1	10	3	13
66 years and under 67 years	5	4	9	..	..	..	5	8	13	1	1	2	9	9	18
67 years and under 68 years	3	3	6	..	..	..	5	6	11	..	1	1	13	5	18
68 years and under 69 years	6	6	12	..	..	..	3	9	12	..	..	..	13	6	19
69 years and under 70 years	6	4	10	..	..	..	1	4	5	2	4	6	13	6	19
70 years and under 71 years	6	..	6	1	..	1	5	2	7	3	1	4	12	1	13
71 years and under 72 years	3	6	9	..	..	..	3	9	12	1	1	2	5	5	10
72 years and under 73 years	4	6	10	..	..	..	..	4	4	2	1	3	8	6	14
73 years and under 74 years	5	3	8	..	..	..	3	2	5	2	..	2	5	5	10
74 years and under 75 years	2	7	9	..	..	..	2	6	8	6	3	9	5	3	8
75 years and under 76 years	8	7	15	..	..	..	2	4	6	4	2	6	5	6	11
76 years and under 77 years	10	6	16	..	..	..	5	3	8	5	6	11	7	5	12
77 years and under 78 years	5	2	7	..	..	..	1	4	5	4	4	8	2	3	5
78 years and under 79 years	4	6	10	..	..	..	1	2	3	4	4	8	2	2	4
79 years and under 80 years	2	5	7	..	..	..	1	6	7	2	1	3	2	4	6
80 years and under 81 years	2	3	5	..	..	..	1	..	1	2	2	4	1	2	3
81 years and under 82 years	1	1	2	..	..	..	1	1	2	1	1	2	4	3	7
82 years and under 83 years	4	6	10	..	..	..	..	3	3	2	4	6	2	5	7
83 years and under 84 years	3	7	10	..	..	..	2	2	4	3	5	8	3	2	5
84 years and under 85 years	1	8	9	..	..	..	..	..	..	1	5	6	2	3	5
85 years and under 86 years	3	2	5	..	..	..	..	1	1	2	1	3	..	2	2
86 years and under 87 years	1	2	3	..	..	..	3	2	5	1	2	3	2	2	4
87 years and under 88 years	4	2	6	..	..	..	..	..	..	3	1	4	1	1	2
88 years and under 89 years	..	4	4	..	..	..	1	..	1	1	1	2	..	1	1
89 years and under 90 years	2	2	4	..	..	..	..	..	..	..	1	1	1	1	2
90 years and under 91 years	1	2	3	..	..	..	1	..	1	..	..	..	..	2	2
91 years and under 92 years	1	1	2	..	..	..	..	..	..	1	..	1	..	..	..
92 years and under 93 years	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..
93 years and under 94 years	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
94 years and under 95 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
95 years and under 96 years	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..
96 years and under 97 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
97 years and under 98 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98 years and under 99 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
99 years and under 100 years	1	1	2	..	..	..	..	..	..	1	..	1	..	..	..
100 years	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
Unknown	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..
	592	657	1,249	13	27	40	505	542	1,047	88	73	161	1,243	888	2,131

TOOWOOMBA MENTAL HOSPITAL

1 year and under 2 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2 years and under 3 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3 years and under 4 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4 years and under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 years and under 6 years	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
6 years and under 7 years	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
7 years and under 8 years	1	1	2	..	..	..	1	..	1	..	..	..	2	..	2
8 years and under 9 years	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
9 years and under 10 years	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
10 years and under 11 years	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
11 years and under 12 years	1	1	2	..	..	..	..	..	..	..	..	..	1	2	3
12 years and under 13 years	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
13 years and under 14 years	..	1	1	..	..	..	1	..	1	..	..	..	1	2	3
14 years and under 15 years	1	..	1	1	..	1	..	..	..	..	..	..	2	2	4
15 years and under 16 years	..	1	1	..	1	1	..	2	2	..	..	..	3	4	7
16 years and under 17 years	..	1	1	..	..	..	..	1	1	..	..	..	1	5	6
17 years and under 18 years	..	1	1	..	2	2	..	1	1	..	..	..	2	2	4
18 years and under 19 years	1	2	3	..	1	1	1	..	1	..	..	..	2	3	5
19 years and under 20 years	..	..	..	2	..	2	..	..	..	..	..	..	6	3	9
20 years and under 30 years	20	19	39	10	11	21	11	8	19	..	..	..	45	39	84
30 years and under 40 years	30	32	62	17	20	37	12	15	27	1	2	3	78	62	140
40 years and under 50 years	36	33	69	19	16	35	15	12	27	5	..	5	116	95	211
50 years and under 55 years	11	18	29	5	9	14	3	3	6	1	3	4	89	75	164
55 years and under 56 years	..	3	3	2	5	7	..	2	2	..	..	..	5	7	12
56 years and under 57 years	3	5	8	..	3	3	1	1	2	1	1	2	11	17	28
57 years and under 58 years	2	5	7	3	3	6	1	1	2	1	..	1	23	20	43
58 years and under 59 years	2	2	4	1	3	4	..	..	..	..	..	..	18	16	34
59 years and under 60 years	3	2	5	1	1	2	1	1	2	2	..	2	13	9	23
60 years and under 61 years	1	4	5	2	4	6	..	3	3	1	..	1	10	14	24
61 years and under 62 years	2	3	5	1	..	1	2	4	6	..	2	2	18	16	34
62 years and under 63 years	2	2	4	1	3	4	3	4	7	1	1	2	12	10	22

TABLE LXXX—*continued*

TOOWOOMBA MENTAL HOSPITAL—*continued*

Age Group	Admissions			Discharges						Deaths			Remaining		
				Recovered			Relieved and Not Improved								
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
63 years and under 64 years	4	2	6	1	1	2	4	1	5	2	..	2	20	15	35
64 years and under 65 years	5	2	7	2	..	2	3	3	6	..	..	..	8	8	16
65 years and under 66 years	1	2	3	1	1	2	1	..	1	..	1	1	6	7	13
66 years and under 67 years	1	..	1	1	1	2	1	1	2	..	1	1	7	6	13
67 years and under 68 years	3	..	3	2	1	3	..	1	1	1	..	1	11	8	19
68 years and under 69 years	1	2	3	1	..	1	2	2	4	1	..	1	7	7	14
69 years and under 70 years	2	2	4	1	..	1	..	2	2	..	..	..	7	7	14
70 years and under 71 years	1	1	2	..	..	..	1	4	5	1	1	2	13	4	17
71 years and under 72 years	3	..	3	..	..	..	..	1	1	..	..	..	5	2	7
72 years and under 73 years	3	3	6	1	1	2	1	..	1	1	2	3	8	5	13
73 years and under 74 years	2	1	3	..	..	..	1	1	2	..	..	..	3	3	6
74 years and under 75 years	2	..	2	1	..	1	1	..	1	..	..	..	4	4	8
75 years and under 76 years	..	3	3	..	..	..	..	5	5	1	..	1	3	5	8
76 years and under 77 years	1	1	2	..	..	..	..	3	3	2	..	2	2	5	7
77 years and under 78 years	..	..	..	..	..	..	..	..	..	..	1	1	3	4	7
78 years and under 79 years	1	1	2	..	..	..	..	..	..	..	..	..	4	5	9
79 years and under 80 years	..	1	1	..	..	..	1	..	1	..	1	1	2	3	5
80 years and under 81 years	2	..	2	..	..	..	1	..	1	2	..	2	..	2	2
81 years and under 82 years	..	3	3	..	1	1	..	..	..	..	1	1	1	1	2
82 years and under 83 years	..	..	..	..	..	..	1	..	1	..	..	..	1	2	3
83 years and under 84 years	1	..	1	..	..	..	..	..	..	1	..	1	2	2	4
84 years and under 85 years	..	5	5	..	..	..	..	4	4	1	2	3	..	..	..
85 years and under 86 years	..	1	1	..	..	..	..	..	..	1	..	1	..	1	1
86 years and under 87 years	1	1	2	..	..	..	..	..	..	1	2	3	..	..	..
87 years and under 88 years	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
88 years and under 89 years	1	1	2	..	..	..	1	1	2	..	..	..	..	..	..
89 years and under 90 years	..	1	1	..	..	..	..	..	..	..	1	1	..	..	..
90 years and under 92 years	..	..	..	..	1	1	..	..	..	..	..	..	1	..	1
92 years and under 93 years	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
93 years and under 95 years	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
95 years and under 96 years	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
96 years and under 97 years	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..
Unknown	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Totals	153	170	323	76	89	165	71	88	159	29	22	51	583	517	1,100

IPSWICH MENTAL HOSPITAL

Under 1 year	2	2	4	..	..	..	..	..	..	..	..	..	1	..	1
1 year and under 2 years	1	2	3	..	..	..	..	..	..	..	..	..	2	2	4
2 years and under 3 years	..	2	2	..	..	..	..	1	1	..	..	..	..	2	2
3 years and under 4 years	1	1	2	..	..	..	2	..	2	..	1	1	..	3	3
4 years and under 5 years	2	2	4	..	..	..	1	..	1	..	..	..	4	1	5
5 years and under 6 years	2	..	2	..	..	..	..	..	..	..	..	..	2	3	5
6 years and under 7 years	4	2	6	..	..	..	1	1	2	..	..	..	8	6	14
7 years and under 8 years	2	1	3	..	..	..	1	..	1	..	..	..	8	2	10
8 years and under 9 years	..	..	..	..	..	..	..	..	..	..	..	..	7	3	10
9 years and under 10 years	..	1	1	..	..	..	2	..	2	..	..	..	4	5	9
10 years and under 11 years	1	..	1	..	..	..	..	..	..	..	..	..	6	3	9
11 years and under 12 years	1	..	1	..	..	..	1	..	1	..	..	..	7	3	10
12 years and under 13 years	..	..	..	..	..	..	..	..	..	..	..	..	4	6	10
13 years and under 14 years	1	..	1	..	..	..	..	..	..	..	..	..	2	4	6
14 years and under 15 years	1	..	1	..	..	..	..	..	..	..	..	..	5	9	14
15 years and under 16 years	..	..	..	..	..	..	1	..	1	..	..	..	7	5	12
16 years and under 17 years	..	..	..	..	..	..	..	..	..	..	..	..	5	3	8
17 years and under 18 years	..	..	..	..	..	..	..	..	..	..	..	..	3	6	9
18 years and under 19 years	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6
19 years and under 20 years	2	..	2	..	..	..	..	..	..	..	..	..	4	4	8
20 years and under 25 years	4	..	4	1	..	1	..	..	..	1	..	1	35	24	59
25 years and under 30 years	2	..	2	1	..	1	..	..	..	..	..	..	17	17	34
30 years and under 35 years	5	..	5	..	..	..	..	..	..	..	..	..	17	22	39
35 years and under 40 years	1	..	1	1	..	1	..	1	1	..	..	..	17	20	37
40 years and under 45 years	2	..	2	3	..	3	..	..	..	..	1	1	19	25	44
45 years and under 50 years	4	..	4	1	..	1	..	1	1	..	..	..	11	31	42
50 years and under 55 years	1	..	1	..	..	..	..	..	..	..	..	..	26	35	61
55 years and under 56 years	..	..	..	..	..	..	..	..	..	..	..	..	5	4	9
56 years and under 57 years	..	..	..	..	..	..	..	..	..	..	..	..	9	9	18
57 years and under 58 years	..	..	..	..	..	..	..	..	..	1	..	1	5	4	9
58 years and under 59 years	1	..	1	..	..	..	..	..	..	..	..	..	4	5	9
59 years and under 60 years	..	..	..	..	..	..	..	1	1	1	..	1	5	5	10
60 years and under 61 years	..	..	..	1	..	1	..	3	3	..	..	..	5	5	10
61 years and under 62 years	..	..	..	..	..	..	..	4	4	..	1	1	4	2	6
62 years and under 63 years	1	..	1	..	1	1	..	2	2	..	1	1	9	2	11
63 years and under 64 years	..	..	..	..	..	..	..	3	3	..	..	..	2	5	7
64 years and under 65 years	..	..	..	..	..	..	..	2	2	..	..	..	3	8	11
65 years and under 66 years	1	..	1	..	..	..	..	4	4	..	..	..	5	1	6
66 years and under 67 years	..	..	..	..	..	..	..	1	1	..	..	..	5	3	8
67 years and under 68 years	..	..	..	..	..	..	..	1	1	1	..	1	5	3	8
68 years and under 69 years	..	..	..	..	..	..	..	2	2	..	..	..	3	3	6
69 years and under 70 years	..	..	..	..	..	..	..	4	4	..	..	..	4	2	6
70 years and under 71 years	..	..	..	..	..	..	..	1	1	..	..	..	7	3	10
71 years and under 72 years	..	..	..	..	..	..	..	2	2	..	..	..	2	1	3
72 years and under 73 years	..	..	..	..	..	..	..	1	1	..	..	..	5	3	8
73 years and under 74 years	..	..	..	..	..	..	..	2	2	..	..	..	1	1	2
74 years and under 75 years	..	..	..	..	..	..	..	1	1	..	1	1	1	..	1
75 years and under 76 years	..	..	..	..	..	..	..	1	1	..	..	..	1	..	1
76 years and under 77 years	..	..	..	..	..	..	..	2	2	..	..	..	2	2	4
77 years and under 78 years	..	..	..	..	..	..	..	2	2	..	..	..	2	1	3
78 years and under 79 years	..	..	..	..	..	..	..	..	..	..	1	1	1	1	2
79 years and under 80 years	..	..	..	..	..	..	..	2	2	..	1	1	..	..	..
80 years and under 81 years	..	..	..	..	..	..	..	1	1	..	..	..	3	2	5
81 years and under 82 years	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
82 years and under 83 years	..	..	..	..	..	..	..	1	1	..	..	..	1	..	1
83 years and under 84 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84 years and under 85 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85 years and under 86 years	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1
86 years and under 87 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87 years and under 88 years	..	..	..	..	..	..	..	1	1	..	..	..	1	..	1
88 years and under 89 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89 years and under 90 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
90 years and under 91 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
91 years and under 92 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
92 years and under 93 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
93 years and under 94 years	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
94 years and under 95 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	42	14	56	8	1	9	9	49	58	4	7	11	324	324	648

TABLE LXXX—*continued*

MOSMAN HALL, CHARTERS TOWERS

Age Group	Admissions	Discharges		Deaths	Remaining
		Recovered	Relieved and Not Improved		
Under 8 years	..	..	..	..	..
8 years and under 9 years	1	..	..	..	1
9 years and under 15 years	..	..	..	..	..
15 years and under 16 years	1	..	..	..	1
16 years and under 17 years	..	1	1	1	..
17 years and under 18 years	..	..	..	..	..
18 years and under 19 years	4	..	1	..	4
19 years and under 20 years	..	..	..	..	2
20 years and under 30 years	13	9	3	..	16
30 years and under 40 years	24	9	14	1	42
40 years and under 50 years	30	18	12	..	52
50 years and under 60 years	20	8	10	3	53
60 years	..	..	..	..	4
61 years	..	..	..	..	4
62 years	8	3	2	..	6
63 years	3	..	1	..	8
64 years	..	..	..	1	..
65 years	1	..	1	..	2
66 years	..	..	..	1	1
67 years	3	2	..	2	..
68 years	..	1	1	1	..
69 years	..	..	..	..	1
70 years	..	..	1	..	..
71 years	..	..	..	1	1
72 years	1	..	..	..	3
73 years	1	..	..	..	3
74 years	3	..	..	1	3
75 years	2	1	1	..	3
76 years	1	..	..	..	2
77 years	..	..	..	1	..
78 years	1	..	..	1	..
79 years	..	..	..	..	..
80 years	..	..	..	..	..
81 years	..	..	..	1	..
82 years	..	..	1	..	..
83 years	..	..	..	..	2
84 years	..	..	..	..	..
85 years	..	..	..	..	..
86 years	..	..	..	..	..
87 years	..	..	..	..	..
88 years	..	..	..	..	..
89 years	..	..	..	..	..
90 years	1	..	..	1	..
	118	52	49	16	214

TABLE LXXXI

Marital Status of Patients whose Admissions, Discharges and Deaths Occurred during the Year and of Patients who Remained in Hospital on 30th June, 1963

Marital Status	Admissions			*Discharges						Deaths			Remaining		
				Recovered			Relieved and not Improved								
	Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total
Brisbane Mental Hospital															
Single	337	201	538	6	8	14	316	154	470	30	15	45	959	478	1,437
Married	181	329	510	6	17	23	145	299	444	32	28	60	227	295	522
Widowed	49	113	162	1	1	2	26	79	105	23	30	53	30	96	126
Divorced	21	14	35	..	1	1	16	10	26	1	..	1	20	17	37
Unknown	4	..	4	..	..	..	2	..	2	2	..	2	7	2	9
Totals, Brisbane Mental Hospital	**592**	**657**	**1,249**	**13**	**27**	**40**	**505**	**542**	**1,047**	**88**	**73**	**161**	**1,243**	**888**	**2,131**
Toowoomba Mental Hospital															
Single	60	33	93	26	13	39	40	28	68	15	9	24	497	310	807
Married	71	106	177	43	65	108	21	44	65	8	4	12	58	163	221
Widowed	13	28	41	4	9	13	5	12	17	5	7	12	10	26	36
Divorced	8	2	10	3	2	5	5	3	8	..	2	2	9	13	22
Unknown	1	1	2	..	..	..	..	1	1	1	..	1	9	5	14
Totals, Toowoomba Mental Hospital	**153**	**170**	**323**	**76**	**89**	**165**	**71**	**88**	**159**	**29**	**22**	**51**	**583**	**517**	**1,100**
Ipswich Mental Hospital															
Single	39	13	52	5	..	5	9	15	24	3	6	9	282	243	525
Married	3	..	3	1	..	1	..	22	22	1	..	1	29	56	85
Widowed	..	1	1	1	1	2	..	11	11	..	1	1	5	16	21
Divorced	..	..	..	..	..	..	..	1	1	..	..	..	3	8	11
Unknown	..	..	..	1	..	1	..	..	..	..	..	..	5	1	6
Totals, Ipswich Mental Hospital	**42**	**14**	**56**	**8**	**1**	**9**	**9**	**49**	**58**	**4**	**7**	**11**	**324**	**324**	**648**
Mosman Hall															
Single	76	..	76	40	..	40	39	..	39	10	..	10	159	..	159
Married	30	..	30	10	..	10	7	..	7	5	..	5	34	..	34
Widowed	6	..	6	..	..	..	2	..	2	1	..	1	9	..	9
Divorced	4	..	4	1	..	1	..	..	..	..	..	..	4	..	4
Unknown	2	..	2	1	..	1	1	..	1	..	..	..	8	..	8
Totals, Mosman Hall, Charters Towers	**118**	..	**118**	**52**	..	**52**	**49**	..	**49**	**16**	..	**16**	**214**	..	**214**
Grand Totals, all Hospitals ..	**905**	**841**	**1,746**	**149**	**117**	**266**	**634**	**679**	**1,313**	**137**	**102**	**239**	**2,364**	**1,729**	**4,093**

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* For the purposes of this Table patients discharged under Section 49 (3) and voluntarily left have been classified under headings shown.

TABLE LXXXII

Length of Residence in the Hospital of the Patients who were Discharged or who Died during the Year and of those who Remained on the Books of the Hospital on 30th June, 1963

—	*Discharges						Deaths			Remaining		
	Recovered			Relieved and not Improved								
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Brisbane Mental Hospital												
Under 1 month	2	5	7	103	83	186	23	13	36	31	43	74
1 month and under 3 months	8	16	24	150	213	363	23	22	45	76	80	156
3 months and under 6 months	1	4	5	101	92	193	16	17	33	86	104	190
6 months and under 9 months	..	1	1	24	49	73	6	3	9	61	61	122
9 months and under 12 months	1	..	1	21	22	43	4	2	6	45	51	96
1 year and under 2 years	1	1	2	40	28	68	6	5	11	127	101	228
2 years and under 3 years	..	..	..	12	16	28	..	4	4	75	84	159
3 years and under 5 years	..	..	..	11	9	20	1	2	3	132	56	188
5 years and under 7 years	..	..	..	7	4	11	2	2	4	111	51	162
7 years and under 10 years	..	..	..	13	3	16	2	..	2	122	47	169
10 years and under 12 years	..	..	..	3	4	7	..	..	..	63	35	98
12 years and under 15 years	..	..	..	6	3	9	2	..	2	72	44	116
15 years and under 20 years	..	..	..	3	8	11	1	3	4	94	53	147
20 years and over	..	..	..	11	8	19	2	..	2	148	78	226
Totals, Brisbane Mental Hospital	**13**	**27**	**40**	**505**	**542**	**1,047**	**88**	**73**	**161**	**1,243**	**888**	**2,131**
Toowoomba Mental Hospital												
Under 1 month	21	17	38	19	16	35	6	5	11	8	12	20
1 month and under 3 months	31	32	63	11	20	31	1	3	4	14	17	31
3 months and under 6 months	12	14	26	12	10	22	3	..	3	11	11	22
6 months and under 9 months	2	7	9	2	8	10	..	1	1	4	10	14
9 months and under 12 months	2	4	6	..	..	..	..	..	..	12	14	26
1 year and under 2 years	4	9	13	1	4	5	1	..	1	15	18	33
2 years and under 3 years	..	3	3	2	3	5	3	..	3	20	19	39
3 years and under 5 years	2	3	5	1	3	4	3	1	4	40	33	73
5 years and under 7 years	..	..	..	1	2	3	3	..	3	21	35	56
7 years and under 10 years	1	..	1	3	4	7	2	1	3	58	38	96
10 years and under 12 years	..	..	..	..	2	2	..	..	..	33	22	55
12 years and under 15 years	..	..	..	1	2	3	1	3	4	41	27	68
15 years and under 20 years	1	..	1	..	3	3	..	1	1	68	60	128
20 years and over	..	..	..	18	11	29	6	7	13	238	201	439
Totals, Toowoomba Mental Hospital	**76**	**89**	**165**	**71**	**88**	**159**	**29**	**22**	**51**	**583**	**517**	**1,100**
Ipswich Mental Hospital												
Under 1 month	..	..	..	1	..	1	..	1	1	4	46	50
1 month and under 3 months	..	..	..	1	..	1	..	..	..	4	..	4
3 months and under 6 months	2	..	2	2	1	3	..	..	..	11	1	12
6 months and under 9 months	2	..	2	..	..	..	..	..	..	9	6	15
9 months and under 12 months	..	..	..	..	..	..	..	..	..	6	3	9
1 year and under 2 years	3	1	4	2	40	42	..	..	..	15	17	32
2 years and under 3 years	..	..	..	1	2	3	..	2	2	18	96	114
3 years and under 5 years	..	..	..	2	..	2	..	..	..	35	13	48
5 years and under 7 years	..	..	..	..	..	..	1	..	1	20	14	34
7 years and under 10 years	..	..	..	..	..	..	..	..	..	34	18	52
10 years and under 12 years	1	..	1	..	..	..	1	..	1	33	18	51
12 years and under 15 years	..	..	..	..	1	1	..	..	..	13	17	30
15 years and under 20 years	..	..	..	..	1	1	1	..	1	45	31	76
20 years and over	..	..	..	..	4	4	1	4	5	77	44	121
Totals, Ipswich Mental Hospital	**8**	**1**	**9**	**9**	**49**	**58**	**4**	**7**	**11**	**324**	**324**	**648**
Mosman Hall												
Under 1 month	15	..	15	14	..	14	2	..	2	9	..	9
1 month and under 3 months	20	..	20	6	..	6	1	..	1	8	..	8
3 months and under 6 months	6	..	6	11	..	11	2	..	2	8	..	8
6 months and under 9 months	4	..	4	5	..	5	1	..	1	28	..	28
9 months and under 12 months	2	..	2	2	..	2	1	..	1	8	..	8
1 year and under 2 years	1	..	1	5	..	5	..	..	..	26	..	26
2 years and under 3 years	1	..	1	1	..	1	4	..	4	18	..	18
3 years and under 5 years	2	..	2	4	..	4	2	..	2	14	..	14
5 years and under 7 years	..	..	..	..	..	..	1	..	1	32	..	32
7 years and under 10 years	1	..	1	1	..	1	2	..	2	25	..	25
10 years and under 12 years	..	..	..	..	..	..	..	..	..	10	..	10
12 years and under 15 years	..	..	..	..	..	..	..	..	..	6	..	6
15 years and under 20 years	..	..	..	..	..	..	..	..	..	9	..	9
20 years and over	..	..	..	..	..	..	..	..	..	13	..	13
Totals, Mosman Hall, Charters Towers	**52**	..	**52**	**49**	..	**49**	**16**	..	**16**	**214**	..	**214**
Grand Totals, all Hospitals	**149**	**117**	**266**	**634**	**679**	**1,313**	**137**	**102**	**239**	**2,364**	**1,729**	**4,093**

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* For the purposes of this Table patients discharged under Section 49 (3) and voluntarily left have been classified under headings shown.

TABLE LXXXIII

Showing Admissions, Discharges, and Deaths at the Wacol Repatriation Pavilion during the Year ended 30th June, 1963

Total number of patients on books as at 30th June, 1962	113
Transferred from Brisbane Mental Hospital	65
	178
Discharged, recovered	1
Discharged, relieved	26
Voluntarily left	8
Died	1
Died on leave	..
Transferred to Brisbane Mental Hospital	32
	68

Total number of patients on books as at 30th June, 1963	110
Total number of patients on leave as at 30th June, 1963	14
Total number of patients in residence as at 30th June, 1963	96
Average number of patients daily resident	98

TABLE LXXXIV

Expenditure Table for the Financial Year ended 30th June, 1963

—	Brisbane Mental Hospital	Toowoomba Mental Hospital	Ipswich Mental Hospital	Mosman Hall, Charters Towers	Total and Average Costs
Average Number Daily Resident	1,842	1,018	613	196	3,669
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Total Expenditure	1,295,254 18 7	544,189 12 4	466,705 15 9	171,000 12 6	2,477,150 19 2
Sales	6,569 1 8	1,518 0 7	1,274 18 10	97 7 6	9,459 8 7
Collections	10,787 0 8	4,572 0 11	1,371 17 4	..	16,730 18 11
Net Expenditure	1,277,898 16 3	538,099 10 10	464,058 19 7	170,903 5 0	2,450,960 11 8
					Average Costs
Gross Cost per Patient per annum	703 3 7	534 11 4	761 6 11	872 9 0	675 3 2
Net Cost per Patient per annum	693 16 2	528 11 8	757 0 7	871 19 1	668 0 5
Gross Cost per Patient per week	13 9 8	10 5 0	14 12 0	16 14 8	12 19 0
Net Cost per Patient per week	13 6 1	10 2 9	14 10 4	16 14 5	12 16 3

TABLE LXXXV

Department of Public Works

Statement Showing Expenditure by the Department of Public Works at Mental Hospitals and the Epileptic Home During the Financial Year 1962–63

Place	Expenditure 1962–63			
	Revenue Fund	Revenue Fund Treasurer and Housing	Loan Fund	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Mental Hospitals—				
Brisbane (Excluding expenses at the Repatriation Hospital)—				
Goodna	57,104 14 5	713 9 8	38,045 16 4	95,864 0 5
Mosman Hall—Charters Towers	2,185 15 7	372 11 0	2,828 13 2	5,341 19 9
Ipswich	7,072 5 3	..	21,195 18 9	28,268 4 0
Toowoomba	14,675 14 8	..	88,483 8 8	103,159 3 4
Epileptic Home—Toowoomba	3,410 3 6	200 0 0	3,617 12 9	7,227 16 3
	£84,448 13 5	£1,241 0 8	£154,171 9 8	£239,861 3 9

Details of Expenditure on Major Works—Mental Hospitals

		Expenditure 1962–63
		£ s. d.
Brisbane (Goodna)	Renovation, Repairs, Internal and External Painting—Building No. 3	10,793 2 10
	Repairs and Painting—Wards 12 and 13	7,870 15 4
	Repairs and Painting—Female Wards 3, 4, 11 and 12	6,654 11 6
	Repairs, Re-roofing, Internal and External Painting—Female Ward No. 10	5,399 1 7
	New Verandah Room—Ward 4	4,120 14 8
	Improvements to Ventilation—Female Ward 10	3,499 0 2
	Conversion of Ward M14 to Security Ward	2,974 19 3
	Improvements to Drainage	2,262 7 10
Ipswich	Additions and Alterations to Male Ward 3	12,819 8 8
	Repairs to Boundary Fences	2,732 3 6
	Conversion of Female Ward 2 to provide Accommodation for Delinquent Girls	1,674 15 4
Toowoomba	Erection of T.B. Ward	50,962 1 1
	Recreation Shelter—Female Ward 1	12,350 2 2
	Repairs and Painting Various Wards and Laundry	8,077 3 11

TABLE LXXXVI

PSYCHIATRIC CLINIC

1. Summary of New Patients Registered During the Year 1962–1963

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
300 *Schizophrenic disorders—*																	
300·0 Simple type	1	..	2	..	3	2	2	6	..	2	1	..	..	..	9	10	19
300·1 Hebephrenic type	..	1	1	..	2	..	..	..	2	2	1	1	..	..	6	4	10
300·3 Paranoid type	2	..	1	..	8	1	14	5	9	13	5	3	2	1	41	23	64
300·4 Acute schizophrenic reaction	1	1	..	..	1	1	..	1	..	1	..	..	..	..	2	4	6
300·5 Latent schizophrenia	1	..	2	..	6	..	3	..	..	2	..	1	1	..	13	3	16
300·6 Schizo-affective psychosis	..	..	..	1	1	..	..	2	..	..	..	1	..	..	1	4	5
300·7 Other and unspecified	..	..	1	..	1	..	..	1	..	..	1	..	..	..	3	1	4
301 *Manic-depressive reaction—*																	
301·0 Manic and circular	..	..	..	..	..	..	..	..	..	1	..	3	2	..	2	4	6
301·1 Depressive	..	..	..	..	..	..	1	1	1	..	3	5	1	3	6	9	15
302 Involutional melancholia	..	..	..	..	..	..	..	..	1	2	1	6	..	1	2	9	11
303 Paranoia and paranoid states	..	..	..	..	..	..	..	..	1	2	..	..	..	..	1	2	3
304 Senile psychosis	..	..	..	..	..	..	..	..	..	..	..	..	4	1	4	1	5
305 Presenile psychosis	..	..	..	..	..	..	..	..	..	1	1	1	..	1	1	3	4
306 Psychosis with cerebral arteriosclerosis	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	2
307 Alcoholic psychosis	..	..	..	..	..	..	..	..	1	..	2	..	..	..	3	..	3
308 *Psychosis of other demonstrable etiology—*																	
308·1 Resulting from epilepsy and other convulsive disorders	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
308·2 Other	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
309 Other and unspecified psychoses	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
310 Anxiety reaction without mention of somatic symptoms	..	2	1	1	4	5	5	10	3	6	2	2	1	1	16	27	43
311 Hysterical reaction without mention of anxiety reaction	..	..	..	2	..	2	..	1	1	1	..	4	..	..	1	10	11
312 Phobic reaction	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	2
313 Obsessive-compulsive reaction	..	..	..	..	..	..	..	1	2	2	..	..	..	1	2	4	6
314 Neurotic-depressive reaction	1	..	1	3	3	9	5	29	5	14	7	12	2	6	24	73	97
316 *Psychoneurosis with somatic symptoms affecting digestive system—*																	
316·1 Irritability of colon specified as of psychogenic origin	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
316·2 Gastric neuroses	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
316·3 Other digsetive manifestations specified as of psychogenic origin	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	2
317 *Psychoneurosis with somatic symptoms affecting other systems—*																	
317·0 Psychogenic reactions affecting respiratory system	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	..	2
317·1 Psychogenic reactions affecting genito-urinary system	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
317·2 Pruritus of psychogenic origin	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	1	2
317·3 Other cutaneous neuroses	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
317·4 Psychogenic reactions affecting musculoskeletal system	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
317·5 Psychogenic reactions affecting other systems	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..	2
318 *Psychoneurotic disorders, other, mixed and unspecified—*																	
318·1 Depersonalization	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
318·4 Mixed	..	..	..	..	..	..	1	..	1	2	..	..	..	..	2	2	4
318·5 Other and unspecified types	..	..	..	..	..	..	..	..	1	2	..	1	..	..	1	3	4
320 *Pathological personality—*																	
320·0 Schizoid personality	2	2	3	3	13	3	6	1	1	..	..	..	..	..	25	9	34
320·1 Paranoid personality	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
320·2 Cyclothymic personality	..	..	..	..	1	..	1	..	1	1	..	..	..	..	3	1	4
320·3 Inadequate personality	2	1	..	..	1	..	5	..	..	..	..	..	..	..	8	1	9
320·4 Antisocial personality	3	1	1	..	4	..	3	..	..	..	1	..	..	..	12	1	13
320·5 Asocial personality	..	4	..	..	1	1	..	..	..	..	..	..	..	..	1	5	6
320·6 Sexual deviation	..	..	2	..	2	1	2	..	1	..	2	..	..	..	9	1	10
320·7 Other and unspecified	..	..	1	1	3	1	2	..	1	..	2	..	..	..	9	2	11
321 *Immature personality—*																	
321·0 Emotional instability	1	1	1	..	1	..	..	1	..	..	..	..	..	..	3	2	5
321·1 Passive dependency	..	2	1	..	..	..	2	2	..	1	1	..	..	..	4	5	9
321·2 Aggressiveness	..	2	..	..	1	1	..	2	1	..	..	..	..	..	2	5	7
321·5 Other and unspecified	1	..	1	1	8	2	..	2	..	..	..	..	..	..	10	5	15
322 *Alcoholism—*																	
322·1 Chronic	..	..	..	..	..	..	8	4	9	1	7	2	3	..	27	7	34
322·2 Unspecified	..	..	..	..	..	..	5	..	7	1	1	..	..	..	13	1	14
323 Other drug addiction	..	..	..	1	..	..	1	..	..	1	..	..	..	..	1	2	3
325 *Mental deficiency—*																	
325·1 Imbecility	1	1	..	..	..	..	1	..	2	..	..	..	..	..	4	1	5
325·2 Moron	..	..	..	..	2	2	..	..	..	..	..	2	..	..	2	4	6
325·3 Borderline intelligence	2	2	..	5	..	..	..	1	..	..	..	..	..	..	2	8	10

TABLE LXXXVI—*continued*

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
326 *Other and unspecified character, behaviour and intelligence disorders*—																	
326·0 Specific learning defects	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
326·3 Acute situational maladjustment	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
326·4 Other and unspecified	3	2	3	1	..	1	3	..	1	..	..	..	..	..	10	4	14
No psychiatric abnormality	2	1	1	1	1	..	1	2	1	2	..	..	1	..	7	6	13
253 Myxoedema	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
350 Parkinsonism	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
355 Cerebral Atrophy	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
353 *Epilepsy*—																	
353·1 Grand mal	..	..	..	..	..	1	1	3	1	2	..	..	..	..	2	6	8
353·3 Other	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	2
Stammer	1	..	3	..	7	..	2	..	..	..	..	..	..	..	13	..	13
Deafness	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Dysphonia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Dysphasia	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Laryngectomy	..	..	..	..	..	..	..	..	..	..	1	..	2	..	3	..	3
Not yet diagnosed	..	1	..	..	1	1	1	1	1	4	1	1	..	..	4	8	12
Total	29	24	26	22	77	37	79	80	58	68	44	47	21	17	334	295	629

TABLE LXXXVII

Sources of Referral of Patients to Psychiatric Clinic, Year ended 30th June, 1963

—	Male	Female	Total
Self referrals	73	71	144
Mental Hospitals—			
Ex and on leave	80	119	199
In-patients	8	6	14
Medical Practitioners—			
Psychiatrists	18	19	37
Others	18	25	43
Commonwealth Departments	10	4	14
State Departments—			
Health and Home Affairs	13	3	16
Youth Welfare and Guidance	8	24	32
Marburg Home	41	..	41
Justice	29	1	30
Other	4	2	6
Public Hospitals	17	12	29
Other	14	10	24
Total	333	296	629

TABLE LXXXVIII

PSYCHIATRIC CLINIC

2. Summary of Patients Continuing in Treatment from the Previous Year, 1961–1962, into the Current Year, 1962–1963

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
300 *Schizophrenic disorders*—																	
300·0 Simple type	1	..	..	..	2	1	4	4	1	2	3	2	..	..	11	9	20
300·1 Hebephrenic type	..	..	..	..	2	4	2	5	4	15	2	16	..	9	10	49	59
300·2 Catatonic type	..	..	..	..	1	1	2	..	1	..	..	1	..	..	4	2	6
300·3 Paranoid type	..	..	..	1	6	3	7	14	13	20	6	11	2	2	34	51	85
300·4 Acute schizophrenic reaction	..	1	..	..	4	..	..	5	..	3	1	2	..	..	5	11	16
300·5 Latent schizophrenia	..	..	..	..	1	2	7	4	3	2	1	1	..	..	12	9	21
300·6 Schizo-affective psychosis	..	..	..	..	..	..	1	2	1	2	1	..	..	1	3	5	8
300·7 Other and unspecified	..	..	1	..	1	2	3	5	2	7	1	3	..	..	8	17	25
301 *Manic-depressive reaction*—																	
301·0 Manic and circular	..	..	..	..	..	..	1	..	1	2	1	4	1	..	4	6	10
301·1 Depressive	..	..	..	..	..	..	1	2	2	4	5	8	2	10	10	24	34
301·2 Other	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	2	3
302 Involutional melancholia	..	..	..	..	..	..	..	..	..	2	..	1	..	6	..	9	9
303 Paranoia and paranoid states	..	..	..	..	..	..	..	..	..	3	1	2	..	1	1	6	7
304 Senile psychosis	..	..	..	..	..	..	..	..	..	..	..	..	1	8	1	8	9
306 Psychosis with cerebral arteriosclerosis	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2	..	2
307 Alcoholic psychosis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
308 *Psychosis of other demonstrable etiology*—																	
308·1 Resulting from epilepsy and other convulsive disorders	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2
308·2 Other	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	..	2
309 Other and unspecified psychoses	..	..	..	..	..	..	..	..	1	1	1	..	..	..	2	1	3
310 Anxiety reaction without mention of somatic symptoms	..	..	..	..	1	5	8	18	2	9	3	5	1	4	15	41	56
311 Hysterical reaction without mention of anxiety reaction	..	..	..	..	..	1	..	4	..	11	..	2	..	1	..	19	19
312 Phobic reaction	..	..	..	..	..	..	..	..	..	1	1	1	..	..	1	2	3
313 Obsessive-compulsive reaction	..	..	..	..	1	1	1	1	1	1	1	1	..	..	4	4	8
314 Neurotic-depressive reaction	..	..	..	1	3	1	3	12	4	25	4	14	3	10	17	63	80

TABLE LXXXVIII—*continued*

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
316 *Psychoneurosis with somatic symptoms affecting digestive system—*																	
316·3 Other digestive manifestations ..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	2	2	4
317 *Psychoneurosis with somatic symptoms affecting other systems—*																	
317·3 Other cutaneous neuroses ..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	2
317·5 Psychogenic reactions affecting other systems	..	..	..	..	..	..	..	2	..	3	1	..	..	2	1	7	8
318 *Psychoneurotic disorders, other, mixed and unspecified—*																	
318·0 Hypochondrical reaction ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	2
318·2 Occupational neurosis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
318·4 Mixed	..	..	..	..	..	1	1	..	2	3	..	2	..	..	3	6	9
318·5 Other and unspecified	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	2
320 *Pathological personality—*																	
320·0 Schizoid personality	1	1	3	..	5	..	2	1	4	..	..	..	..	..	15	2	17
320·1 Paranoid personality	..	..	..	..	..	..	1	..	1	..	..	1	..	..	2	1	3
320·2 Cyclothymic personality ..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	2	..	2
320·3 Inadequate personality	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	2
320·4 Antisocial personality	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	2
320·5 Asocial personality	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
320·6 Sexual deviation	..	..	..	..	3	..	2	..	1	..	1	..	1	..	8	..	8
320·7 Other and unspecified	..	..	..	..	2	1	1	1	..	..	..	..	..	..	3	2	5
321 *Immature personality—*																	
321·0 Emotional instability	..	1	..	..	1	..	..	..	..	1	..	..	..	..	1	2	3
321·1 Passive dependency	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	2
321·4 Other symptomatic habits except speech impediments	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
321·5 Other and unspecified	..	..	..	..	..	5	1	3	..	2	..	..	..	..	1	10	11
322 *Alcoholism—*																	
322·1 Chronic	..	..	..	..	..	..	..	..	1	..	1	..	..	..	2	..	2
322·2 Unspecified	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
324 Primary childhood behaviour disorders	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
325 *Mental deficiency—*																	
325·1 Imbecility	..	..	..	..	2	1	2	..	..	2	..	..	1	..	5	3	8
325·5 Other and unspecified types ..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	2	1	3
326 *Other and unspecified character, behaviour and intelligence disorders—*																	
326·3 Acute situational maladjustment	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
326·4 Other and unspecified	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	2
328 No psychiatric abnormality	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
351 Spastic	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2
353 *Epilepsy—*																	
353·0 Petit mal	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	2
353·1 Grand mal	..	..	..	..	1	..	2	1	1	4	..	1	..	..	4	6	10
353·3 Other	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
355 Huntington's Chorea	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	2
Stammer	..	..	..	..	6	2	1	..	..	..	..	..	1	..	8	2	10
Deafness	..	..	1	..	1	1	..	..	..	..	..	..	..	..	2	1	3
Dysphonia	..	..	..	..	1	..	..	..	2	..	..	..	..	..	3	..	3
Dysphasia	..	..	..	..	..	..	..	..	..	..	1	1	1	..	2	1	3
Dyslalia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Aphasia	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	1	2
Laryngectomy	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Total	3	4	5	2	50	36	60	95	52	125	41	84	17	59	228	405	633

TABLE LXXXIX
PSYCHIATRIC CLINIC

3. Summary of Patients Discharged in Previous Years Who Have Received Treatment in the Current Year, 1962–1963

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
300 *Schizophrenic disorders—*																	
300·0 Simple type	..	..	..	1	5	5	4	3	..	2	1	..	..	..	10	11	21
300·1 Hebephrenic type	..	..	..	..	2	1	..	4	..	3	1	2	1	3	4	13	17
300·2 Catatonic type	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
300·3 Paranoid type	..	..	..	..	3	1	5	8	6	8	1	7	..	..	15	24	39
300·4 Acute schizophrenic reaction ..	..	..	..	..	4	..	1	..	..	1	..	..	..	..	5	1	6
300·5 Latent schizophrenia	..	..	..	..	..	..	..	3	..	1	..	..	..	..	..	4	4
300·6 Schizo-affective psychosis ..	..	..	..	..	1	..	1	..	1	..	..	1	..	1	3	2	5
300·7 Other and unspecified	..	..	..	..	2	..	..	1	..	..	1	..	..	..	3	1	4
301 *Manic-depressive reaction—*																	
301·0 Manic and circular	..	..	..	..	..	1	1	..	..	2	1	..	1	1	3	4	7
301·1 Depressive	..	..	..	..	..	..	..	..	1	3	1	2	..	1	2	6	8
302 Involutional melancholia	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
303 Paranoia and paranoid states	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
307 Alcoholic psychosis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1

TABLE LXXXIX—*continued*

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
308 *Psychosis of other demonstrable etiology—*																	
308·1 Resulting from epilepsy and other convulsive disorders ..	..	..	..	1	..	1	..	..	..	1	..	1	..	..	..	4	4
309 Other and unspecified psychoses ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
310 Anxiety reaction without mention of somatic symptoms	..	1	..	..	1	3	3	4	3	3	2	1	..	..	9	12	21
311 Hysterical reaction without mention of anxiety reaction	..	..	..	..	..	..	1	3	1	5	..	..	..	..	2	8	10
312 Phobic reaction	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
313 Obsessive-compulsive reaction.. ..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	1	2	3
314 Neurotic-depressive reaction	..	..	..	..	..	2	..	1	..	5	..	2	3	4	3	14	17
317 *Psychoneurosis with somatic symptoms affecting other systems—*																	
317·1 Psychogenic reactions affecting genito-urinary system	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2	2
317·5 Psychogenic reactions affecting other systems	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
318 *Psychoneurotic disorders, other, mixed and unspecified—*																	
318·0 Hypochondriacal reaction ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
318·3 Asthenic reaction	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
318·4 Mixed	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	2
320 *Pathological personality—*																	
320·0 Schizoid personality	..	..	1	..	1	1	..	1	..	..	..	..	..	..	2	2	4
320·1 Paranoid personality	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
320·2 Cyclothymic personality ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
320·3 Inadequate personality	..	..	..	..	2	..	..	..	..	..	..	1	..	..	2	1	3
320·4 Antisocial personality	..	..	..	1	2	1	..	..	..	..	..	..	..	..	2	2	4
320·7 Other and unspecified	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	2	3
321 *Immature personality—*																	
321·0 Emotional instability	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	2
321·1 Passive dependency	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	2
321·2 Aggressiveness	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	2
321·3 Enuresis	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
321·5 Other and unspecified	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	2
322 *Alcoholism—*																	
322·1 Chronic	..	..	..	..	..	1	1	..	..	1	2	1	..	..	3	3	6
324 Primary childhood behaviour disorders	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
325 *Mental deficiency—*																	
325·0 Idiocy	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
325·1 Imbecility	1	..	..	..	2	..	1	..	..	..	..	..	..	..	4	..	4
325·2 Moron	..	..	1	1	1	1	..	..	..	..	..	1	..	..	2	3	5
325·3 Borderline intelligence	..	..	..	..	1	..	..	1	..	..	1	..	..	..	2	1	3
325·5 Other and unspecified types ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	2
353 *Epilepsy—*																	
353·0 Petit mal	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	1	2
353·1 Grand mal	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
355 Huntington's Chorea	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
Stammer	1	..	..	1	4	..	1	1	..	1	..	..	..	..	6	3	9
Total	3	3	5	6	34	21	19	35	16	45	11	21	8	12	96	143	239

Total Number of All Patients who Have Received Treatment during the Year 1962–63

TABLE LXXXVII	629
TABLE LXXXVIII	633
TABLE LXXXIX	239
Grand Total	1,501

Number of Psychiatric Consultations	8,783
Number of Speech Therapy Consultations— (excluding those at Welfare and Guidance Clinic)	307
Total	9,090

Referral of Patients from Clinic to Other Psychiatric Units during the Year 1962–63

Mental Hospitals		57
North Brisbane Hospital—		
Lowson House	11	
Ward 16	11	
	—	22
Total		79

TABLE XC

PSYCHIATRIC CLINIC

4. Forensic Clinic—Analysis of Examinations of Patients (Already Included in Previous Tables) Referred by or Through The Department of Justice

—	Under 18		18–19		20–29		30–39		40–49		50–59		60 and Over		Total		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Parole Board																	
320 *Pathological personality*—																	
320·4 Antisocial personality	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
320·6 Sexual deviation	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
No psychiatric abnormality	..	..	..	..	..	..	1	..		..	..	..	..	..	1	..	1
Total	1	..	..	..	..	..	1	..	..	..	..	..	1	..	3	..	3
Pre-Sentence Reports																	
320 *Pathological personality*—																	
320·0 Schizoid personality	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
320·3 Inadequate personality	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
320·6 Sexual deviation	..	..	..	..	1	..	..	..	..	..	1	..	..	..	2	..	2
320·7 Other and unspecified	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..	2
322 *Alcoholism*—																	
322·1 Chronic	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
325 *Mental deficiency*—																	
325·5 Other and unspecified	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Total	1	..	1	..	4	..	..	..	..	..	2	..	..	..	8	..	8
Probation Officer and Police Referrals																	
300 *Schizophrenic disorders*—																	
300·0 Simple	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	..	2
300·1 Hebephrenic	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
300·5 Latent	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
303 Paranoia and paranoid states	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
310 Anxiety reaction without mention of somatic symptoms	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	2
320 *Pathological personality*—																	
320·0 Schizoid personality	..	..	3	..	2	..	1	..	..	..	..	..	..	..	6	..	6
320·4 Antisocial personality	..	..	1	..	1	..	..	1	..	..	..	..	..	..	2	1	3
320·6 Sexual deviation	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..	2
321 *Immature personality*—																	
321·5 Other and unspecified	..	..	..	..	4	..	..	..	..	..	..	..	..	..	4	..	4
325 *Mental deficiency*—																	
325·1 Imbecility	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
325·3 Borderline intelligence	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
326 *Other and unspecified character, behaviour and intelligence disorders*—																	
326·4 Other and unspecified	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Total	..	..	6	..	11	..	4	2	..	..	2	..	1	..	24	2	26
Public Defender																	
300 *Schizophrenic disorders*—																	
300·6 Schizo-affective psychosis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
320 *Pathological personality*—																	
320·3 Inadequate personality	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
320·4 Antisocial personality	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	..	2
320·7 Other and unspecified	..	..	1	..	..	..	..	..	1	..	..	..	..	..	2	..	2
322 *Alcoholism*—																	
322·1 Chronic	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
322·2 Unspecified	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
325 *Mental deficiency*—																	
325·1 Imbecility	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
No psychiatric abnormality	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Total	..	..	1	..	4	..	3	..	1	..	..	..	1	..	10	..	10
Examined by Order of Executive Council																	
300 *Schizophrenic disorders*—																	
300·3 Paranoid type	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
300·5 Latent schizophrenia	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
308 *Psychosis of other demonstrable etiology*—																	
308·2 Other	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
320 *Pathological personality*—																	
320·0 Schizoid personality	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	..	2
320·4 Antisocial personality	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..	2
320·6 Sexual deviation	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
325 *Mental deficiency*—																	
325·1 Imbecility	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2
353 *Epilepsy*—																	
353·3 Other and unspecified	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Total	..	..	..	..	4	1	3	1	1	..	1	..	..	..	9	2	11
Grand total	2	..	8	..	23	1	11	3	2	..	5	..	3	..	54	4	58

Number of Consultations at Her Majesty's Prison	69
Number of Consultations at Psychiatric Clinic	148
Number of Consultations at Mental Hospitals	15
Total	232

TABLE XCI

POPULATION CHANGES AT EPILEPTIC HOME DURING THE YEAR 1962–63

PATIENTS AT 30TH JUNE, 1962 : MALES 48 ; FEMALES 59 ; TOTAL 107

FOR YEAR ENDED 30TH JUNE, 1963

Aged	Admitted		Discharged		Mental Hospital		Deaths		Remaining		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
1 year	..	..	..	..	..	..	..	..	..	..	..
2 years	..	..	..	..	..	..	..	..	..	..	..
3 years	..	..	..	..	..	..	..	..	..	..	..
4 years	..	..	..	..	..	..	..	..	..	..	..
5 years	..	..	..	..	..	..	..	..	..	..	..
6 years	..	..	..	..	..	..	..	..	..	..	..
7 years	..	1	..	..	..	..	..	..	..	1	1
8 years	..	..	..	..	..	..	..	..	..	..	..
9 years	..	..	..	..	..	..	..	..	..	..	..
10 years	..	..	..	..	..	..	..	..	..	..	..
11 years	..	..	..	..	..	..	..	..	..	1	1
12 years	..	..	..	..	..	..	..	..	1	..	1
13 years	..	..	..	..	..	..	..	..	..	1	1
14 years	..	..	..	..	..	..	..	..	1	..	1
15 years	..	..	..	..	..	..	..	..	1	1	2
16 years	..	1	..	..	..	..	..	..	2	2	4
17 years	..	..	1	..	..	..	..	..	..	2	2
18 years	..	..	..	..	..	..	..	..	..	1	1
19 years	..	..	..	..	..	..	..	..	6	..	6
20 years	..	..	..	..	..	..	..	..	..	..	..
21–25 years	1	..	..	..	1	..	..	1	4	7	11
25–30 years	..	..	..	1	..	..	..	1	9	6	15
30–35 years	..	..	..	..	..	..	..	..	5	4	9
35–40 years	..	..	..	..	..	..	..	..	6	1	7
40–45 years	..	..	..	..	..	..	..	..	1	10	11
45–50 years	..	..	..	..	..	..	..	..	3	7	10
50–55 years	1	..	..	..	..	..	..	..	6	4	10
55–60 years	..	..	..	..	..	..	..	..	2	..	2
55 years	..	..	..	..	..	..	..	..	..	..	..
56 years	..	..	..	..	..	..	..	..	..	2	2
57 years	..	..	..	..	..	..	..	..	..	2	2
58 years	..	..	..	..	..	..	..	..	..	1	1
59 years	..	..	..	..	..	..	..	..	..	..	..
60 years	..	..	..	..	..	..	..	..	..	1	1
61 years	..	..	..	..	..	..	..	..	..	..	..
62 years	..	..	..	..	..	..	..	..	..	2	2
63 years	..	..	..	..	..	..	..	..	..	..	..
64 years	..	..	..	..	..	..	..	..	..	1	1
65 years	..	..	..	..	..	..	..	..	..	..	..
66 years	..	..	..	..	..	..	..	..	..	..	..
67 years	..	..	..	..	..	..	..	..	..	1	1
68 years	..	..	..	..	..	..	..	..	..	..	..
69 years	..	..	..	..	..	..	..	..	..	..	..
70 years	..	..	..	..	..	..	..	..	..	..	..
71 years	..	..	..	..	..	..	..	..	..	..	..
72 years	..	..	..	..	..	..	..	..	..	..	..
73 years	..	..	..	..	..	..	..	..	1	..	1
Totals	2	2	1	1	1	..	..	2	48	58	106

Patients' Residence—

Under 5 years	27
5–10 years	23
10–15 years	14
15–20 years	15
Over 20 years	27

Cause of Death—

Female aged 21 years. Status Epilepticus.
Female Aged 26 years. 1. (*a*) Pneumonia.
2. Cerebral Degeneration ;
Idiopathic Epilepsy.

TABLE XCII

EXPENDITURE TABLE, EPILEPTIC HOME, FOR THE TWELVE MONTHS ENDED 30TH JUNE, 1963

Average Number Daily Resident—97

	£	*s.*	*d.*
Gross Expenditure	47,802	16	0
Collections	14,477	5	10
Net Expenditure	33,325	10	2
Gross Cost per patient per annum	492	16	3
Net Cost per patient per annum	345	12	6
Gross Cost per patient per week	9	9	0
Net Cost per patient per week	6	12	7

DIVISION OF WELFARE AND GUIDANCE

Senior Medical Director: B. J. PHILLIPS, M.B., B.S. (Qld.), D.P.M. (London)

Medical Director: B. NURCOMBE, M.B., B.S. (Qld.), D.P.M. (Melb.)

Medical Director: I. CHARLES, M.B., B.S. (Melb.), D.P.M. (Melb.)

Medical Director: W. LEGGAT, L.R.C.P., L.R.C.S. (Edinburgh), L.R.F.P.S. (Glasgow), D.P.M. (Eng.)

Medical Officer: J. LOWREY, M.B., B.S. (Qld.), D.P.M. (A.A.P.)

During the year 1962-63 there has been expansion of the Division of Welfare and Guidance by way of the appointment of further staff and the opening of the first Child Guidance Clinic in the country. The Toowoomba Child Guidance Clinic was opened in May, 1963, by the Minister for Health and Home Affairs. A building was renovated for the purpose of providing a clinic urgently for Toowoomba. It will be partly staffed from Brisbane for the time being, but will have a full staff of its own in due course.

The Minister stated at the opening of the Toowoomba Clinic that similar units to that being built at the Brisbane Children's Hospital would be constructed at Toowoomba, Townsville and ultimately at Rockhampton. When this is accomplished there will be a modern unit at the State's larger centres to which cases can be referred from surrounding districts.

Obtaining trained staff is still a problem. At present there is a shortage of trained social workers and psychologists, and staffing clinics in the country centres is a special problem.

Two members of the medical staff are to be congratulated this year for their achievements. Dr. Nurcombe was awarded a Harkness Foundation Scholarship which will enable him to do special study at the Judge Baker Child Guidance Clinic in Boston, U.S.A. Dr. Lowrey obtained the recently introduced A.A.P. Diploma in Psychological Medicine, being the first candidate to pass this examination.

The amount of work done by the Welfare and Guidance Clinics during the year was reflected in the grand total of interviews, examinations, &c., which approached 20,000 for the year. Some work was not counted in this total, as for example the daily rounds by the medical officers at Wilson Hospital. Table XCII shows the amount of work done by the various professional groups. An approximate average time for an interview or examination in child guidance is one hour. This may be followed by time spent in writing up results of the interview.

TABLE XCII

SHOWING NUMBER OF INTERVIEWS AND EXAMINATIONS DONE BY THE PROFESSIONAL STAFF

Psychiatrists ..	.. Total interviews or examinations	8,339
Psychologists ..	.. Total interviews or tests ..	.. 2,410
	Total number of group treatments	1,936
Social Workers	.. Total interviews	.. 1,916
	Total number of group treatments	105
Medical Consultants ..	Total interviews or examinations	747
Speech Therapists ..	Total interviews (individual and group)	.. 1,941
Occupational Therapist	Total individual treatments ..	65
	Total group treatments ..	.. 1,481
Grand Total Interviews		.. 18,940

MARY STREET WELFARE AND GUIDANCE CLINIC

This Clinic was as busy as in previous years and at times there is a waiting list of about three or four months. Each family seen means that not only is a child treated but at least one parent or sibling is counselled.

The number of new families seen during the year was 659. Of the children presented 449 were boys and 210 were girls. Those being carried on in treatment from previous years was 562. There were also 62 children referred for psychological testing only from other clinics.

Table XCIII shows the ages of the new patients attending. It will be noted that primary school children make up more than half but secondary school children and kindergarten children come in considerable numbers.

TABLE XCIII

SHOWING AGES OF NEW PATIENTS ATTENDING CENTRE

Age Group	Number	Pecerntage
0 to under 3 years	15	2·3
3 to under 5 years	114	17·3
5 to under 12 years	357	54·2
12 to under 15 years	113	17·1
15 to under 18 years	60	9·1
Total	659	100·0

Table XCIV shows that most families either come on their own initiative or are referred by the family doctor.

TABLE XCIV

SHOWING SOURCE OF REFERRAL OF NEW PATIENTS

Source	Number
Private individuals, i.e., parents	355
Family doctors and medical specialists	167
Public Hospitals	23
School Health Services	10
Maternal and Child Welfare Department	9
Commonwealth Acoustic Laboratory	10
State Children Department	15
Education Department—Research and Guidance Branch	25
Schools	18
Other sources	27
Total	659

The reasons for children being brought to the Clinic are tabulated in Table XCV. There has been little change from previous years.

TABLE XCV

SHOWING REASONS FOR REFERRAL OF PATIENTS TO CENTRE

Reason	Number	Percentage
Reasons associated with Anti-social Behaviour	36	5·5
Reasons associated with other Disturbances of Behaviour	180	27·3
Reasons associated with Educational Problems	152	23·0
Reasons associated with Employment Problems	5	0·8
Reasons associated with Nervous Habits ..	34	5·2
Reasons associated with Mental Deficiency ..	28	4·2
Reasons associated with Organic Brain Disorder	20	3·0
Reasons associated with Personality Disorder	22	3·3
Reasons associated with Psychosomatic Symptoms and Sensory Defects	24	3·7
Reasons associated with Speech Disorders ..	156	23·7
Miscellaneous	2	0·3
Total	659	100·0

It sometimes happens in Child Guidance that it is impossible to obtain accurate information concerning the family. However, in 659 new families seen this information was obtained in all but 23 and it was found that while there were 520 children coming from a natural family (i.e. with both mother and father), 116 children were from "broken homes". Of these 116 children from "broken homes" 33 children were adopted and 46 children were without fathers for some reason.

Of the 659 new patients this year, all but 16 were school children or younger than school age. Of the remainder 147 had not commenced school as they were too young but 353 attended State schools and 107 went to private schools. The remaining children either went to unspecified schools or did not attend because of mental deficiency or some other reason.

The intelligence of children attending the clinic is shown in Table XCVI.

TABLE XCVI

SHOWING INTELLIGENCE DISTRIBUTION FOR 327 CHILDREN

Intellectual Classification	I.Q. Range	Number Tested Welfare and Guidance	Number Tested Elsewhere	Total Number
Mental Defect ..	70 and below	34	2	36
Borderline Mental Defect	71– 80	48	3	51
Dull Normal ..	81– 90	57	8	65
Average	91–110	112	16	128
Bright Normal ..	111–120	34	2	36
Superior	121–130	10	0	10
Very Superior ..	131 and above	1	0	1
Totals ..	..	296	31	327

Some children attended the clinic primarily because of speech defects. Unfortunately there is a shortage of trained speech therapists and the Mary Street Clinic is understaffed in speech therapy. The staff comprises one full time therapist and some part-time therapists who cope with adults as well. However, 105 children new to the clinics were seen and 123 were carried on in treatment from previous years. Most of the speech cases are seen by the Welfare and Guidance medical staff also.

Some children are referred for psychological testing only by a psychiatrist elsewhere. They come mainly from the Hospital for Sick Children. This year 62 were tested of whom 37 were boys and 25 were girls.

This year a survey was attempted to see where patients came from to the Mary Street Centre. This survey was of 629 cases of whom 476 came from Brisbane and suburbs, 122 from areas outside Brisbane, 12 from institutions and 19 from other States.

The following table shows the areas from which patients come to Mary Street Clinic.

TABLE XCVII

AREAS FROM WHICH PATIENTS COME TO MARY STREET CLINICS
(Estimated on 632 Cases)

	No. of Cases
1. Areas most convenient to city centre, i.e., Toowong, Ashgrove, Enoggera, Indooroopilly, New Farm, Sherwood, &c.	143
2. Areas apparently most convenient to city centre because of transport system, i.e., Inala, Darra, Oxley	33
3. Areas most convenient to Herston Children's Hospital, i.e., Zillmere, Bowen Hills, Chermside, Lutwyche, &c.	51
4. Outlying areas convenient either to city centre or Herston. Sandgate, Nudgee, Nundah, Wooloowin, Albion, &c.	50
5. Areas most convenient to Mater Hospital, i.e., Camp Hill, West End, Balmoral, Holland Park, &c.	92
6. Areas apparently most convenient to Mater Hospital because of transport system, e.g., Wynnum, Manly, Tingalpa, &c.	14
7. Areas most convenient to South Brisbane Hospital, i.e., Cannon Hill, Norman Park, Annerley, Moorooka, Yeerongpilly, Eight Mile Plains, Salisbury, &c.	93
8. Institutions for children in Brisbane	12
9. Redcliffe area	7
10. Ipswich area .. .. (Note Brisbane suburbs of Darra, Oxley, Sherwood, Graceville would be more convenient to Ipswich)	13
11. North Coast Line	17
12. South Coast Line	18

N.B.—The remainder of the cases in the survey were from areas in New South Wales, Darling Downs, Townsville, Rockhampton, &c.

It will be noted that approximately the same number of cases come to Mary Street Clinic from the North and the South of the river in Brisbane.

From population statistics it is apparent that there are about 340,000 people living on the north side and north-west areas and 240,000 approximately on the south and western areas of Brisbane. There are then about 100,000 more people on the north than on the south side but attendance at the clinics is roughly the same. There seem to be more problems with children on the south and western side or perhaps there are more children there. The conclusion is that figures indicate that future clinics should be over on the south side.

The E.E.G. Section—Mary Street Clinic

The E.E.G. section has been expanding in function over the last year. The staff had been largely in the training stage last year but, with the help and supervision of Dr. M. Eadie, the section has become skilled in doing E.E.G.'s on children. This is not always an easy procedure and requires more patience than work with adults.

The amount of work done by the E.E.G. section is shown in Table XCVIII. The total number of cases was 562.

TABLE XCVIII

NUMBER OF E.E.G.'S DONE DURING YEAR (562 CASES)

—	Number	Abnormal (Per cent.)
Mary Street Centre (selected patients) ..	246	55
Wilson Hospital Out-patient Clinic (selected patients)	160	47
Wilson Hospital In-patients (routine on all) ..	99	62
Children's Hospital Clinic (selected patients) ..	15	40
Diamantina Receiving Depot—Wooloowin (selected cases)	11	55
Handicapped Babies Centre—Chermside (selected cases)	3	100
Toowoomba Child Guidance Clinic (selected)	1	100
Psychiatric Clinic—30 Mary Street (selected adults)	27	51

The categories of E.E.G. abnormalities are given in Table XCIX.

TABLE XCIX

SHOWING CATEGORIES OF E.E.G. ABNORMALITIES

Abnormalities have been divided into:—
(1) Maturation Defects.
(2) Epileptic Tendencies.
(3) Other Abnormalities.

Clinic or Hospital	Maturation Defects		Epileptic Tendencies		Other Abnormalities	
	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.
Welfare and Guidance Clinic, Mary Street	19	14	50	37	66	49
Wilson Youth Hospital Out-patients' Department	21	28	18	24	36	47
Wilson Youth Hospital In-patients	24	39	12	20	25	41
Children's Hospital Child Guidance Out-patients	2	33⅓	0	0	4	66⅔
Diamantina Receiving Depot, Wooloowin	0	0	4	66⅔	2	33⅓
Treatment Centre for Handicapped Children, Chermside ..	2	66⅔	1	33⅓	0	0
Toowoomba Child Guidance Clinic	Nil		Nil		Nil	
Psychiatric Clinic	Nil		3	21·4	11	78·5
Totals	68	20·6	59	35·7	72	43·7

It will be noted that the greatest single abnormality among the Wilson Youth Hospital in-patients and the Wilson Youth Hospital out-patients is that of Maturation Defect. The same type of child, i.e., delinquent, is treated at both these centres.

The greatest single abnormality among children attending the Mary Street Clinic is that of Epileptic Tendencies. A different type of child is treated at this Clinic.

THE BRISBANE CHILDREN'S HOSPITAL—CHILD GUIDANCE CLINIC

The number of new cases seen during the year was 132 of whom 76 were boys and 56 were girls. The number of children brought forward from last year for treatment was 65. The ages of children tended to be younger than those at Mary Street as the hospital sees children up to the age of 12 years only. Of 132 children in this particular survey 94 were referred by doctors, i.e., family doctors or the hospital staff. Only 26 were referred by parents or other private individuals. Of the 132 children, 24 were from "broken homes."

The reasons for seeking treatment at the Clinic were much the same as at the Mary Street Clinic. However, there were fewer speech cases and proportionately three times as many cases of organic nature. The schools which the children attended were in much the same frequency, and the intelligence of those tested was approximately in the same distribution.

The areas from which children came to the Children's Hospital Clinic were as shown in Table C. Of the total of 132 children 94 were from Brisbane and suburbs and 26 from areas outside Brisbane. The remainder were from institutions or other sources.

TABLE C

Showing Areas From Which Patients Came to Children's Hospital Clinic (Estimated on 132 children)

	Number of Cases
1. Areas convenient to the city centre	35
2. Areas apparently convenient to city centre because of transport system, i.e., Inala ..	7
3. Areas convenient to Herston (Children's Hospital)	10
4. Outlying areas convenient to Herston or city centre	16
5. Areas convenient to Mater Hospital	9
6. Areas apparently convenient to Mater Hospital because of transport system, i.e., Wynnum, Manly, &c.	5
7. Areas most convenient to South Brisbane Hospital	12
8. Institutions in Brisbane	6
9. Redcliffe area	4
10. Ipswich area	4
11. North Coast Line	3
12. South Coast Line	3

N.B.—The remainder of the cases in the survey were in areas in New South Wales, Darling Downs, Townsville, Rockhampton, &c.

Whereas approximately the same number of patients come from the south side of Brisbane as the north side to the Mary Street Clinic, at the Children's Hospital Clinic, only half as many are from the south side. The difference may be due to transport.

WOOLOOWIN CHILDREN'S HOME

During the year 114 children, of whom 49 were boys and 65 were girls, were examined at Wooloowin Home. The babies in the Infants' Home are mentally tested as a routine and children in the Receiving Depot are seen on request. Some cases are treated by the medical officer at the Home, 33 cases being carried on from previous years.

The ages of the children examined at Wooloowin Home are shown in Table CI, and the reasons for admission to the Home are in Table CII.

Approximately half the children seen are babies but a considerable number in the school age are treated. More clinical facilities and medical staff would be an advantage at the Wooloowin Home.

TABLE CI

Showing Ages of Children Seen at Wooloowin

Age	Number	Percentage
0 to under 3 years	53	46·5
3 to under 5 years	10	8·8
5 to under 12 years	32	28·0
12 to under 15 years	9	7·9
15 to under 18 years	10	8·8
Totals	114	100·0

TABLE CII

Showing Causes for Admission to Wooloowin

Cause	Number
Temporary admission until parents find accommodation	3
Parents separated, divorced, and not wanting child ..	4
Mother dead, deserted, insane, in hospital and no one able or fit to care for child	32
Father dead, deserted, in gaol, &c., mother unable or not fit to care for and support child	20
Ex-nuptial, mother unable, or not fit, to care for and support child	19
Miscellaneous reasons	11
Re-admittance from foster home as behaviour problem	10
No information	15
Total	114

WILSON YOUTH HOSPITAL—OUT-PATIENT CLINIC

The number of new families for the year was 369. Of this number 272 were boys and 97 were girls. The number in treatment from the previous year was 96.

The majority of the children brought to the clinic were referred by the State Children Department (213 in number) but 87 were referred by family doctors or by the parents themselves as they were concerned about the behaviour of their child. It is interesting to note that stigma seems to be considered trivial by those attending Wilson Hospital as 87 parents brought children to the hospital on their own initiative and not sent by a Court or Government Department.

The age of children attending the clinic is higher than at Mary Street Clinic as 77·5 per cent. were aged 12 years or older. The delinquency aspect of the clinic is reflected in the fact that 36·3 per cent. of the patients were suffering from anti-social behaviour disorders compared with 5·5 per cent. at the Mary Street Clinic. The State Children Department sent 25·5 per cent of the referrals for assessment. Another 24·4 per cent. were sent because of behaviour disorders not necessarily anti-social. There were very few referrals for other causes.

At the Mary Street Clinic 520 cases out of 659 lived at home with their natural parents but at Wilson Hospital Clinic only 131 cases out of 369 lived with their parents. The remaining number (approximately two-thirds) were from institutions or from broken homes. Not all the children attending Wilson Hospital Out-patient Clinic were charged with delinquent acts but the great majority were behaviour problems.

Unemployment was noted in 31 cases out of 369. Some of these would have got into trouble anyway so unemployment contributing to delinquency does not appear to be significant. The employment of 109 children is shown in Table CIII. The intelligence distribution of the children tested at the Clinic at Wilson was roughly the same as at Mary Street.

TABLE CIII

Showing Employment of Children Attending Wilson Hospital Clinic

1. Unskilled	22
2. Factory work	7
3. Shop assistant, salesman	9
4. Clerical	2
5. Trades	8
6. Semi-skilled work	6
7. Training in farm work at Riverview, Marsden, &c.	19
Training in laundry and domestic work at S.A. (Toowong), Holy Cross, Mitchelton, &c.	32
8. Detail of position unspecified (merchant navy, meat works (2), wire works)	4
Total	109

The areas from which children come to the Clinic are shown in Table CIV. As with the attendance at Mary Street Clinic approximately the same number came from North Brisbane and South Brisbane.

TABLE CIV

Showing Areas From Which Out-patients Came to the Wilson Hospital Clinic

1.	Areas convenient to the city centre	49
2.	Areas apparently convenient to city centre because of the transport system, i.e., Inala region	9
3.	Areas convenient to Herston	28
4.	Areas convenient either to city centre or Herston	11
5.	Areas convenient to Mater Hospital	39
6.	Areas apparently most convenient to Mater Hospital because of transport, i.e., Wynnum, &c.	9
7.	Areas most convenient to South Brisbane Hospital	25
8.	Institutions	120
9.	Redcliffe area	9
10.	Ipswich area	10
11.	North Coast Line	6
12.	South Coast Line	1

N.B.—The remainder of the cases in the survey were in areas in New South Wales, Darling Downs, Townsville, Rockhampton, &c.

WILSON YOUTH HOSPITAL—OUT-PATIENT ATTENDANCE CENTRE

Over the last year an Out-patient Attendance Centre has been conducted at Wilson Hospital one night per week. The results of this treatment have been very good.

The Attendance Centre is conducted by a psychiatrist, psychologist, social worker and occupational therapist. Individual treatment, drug therapy, group treatment and counselling of parents is undertaken at the Centre. The fathers of the boys have been invited to attend and it has been found where father and son co-operate in attending the Clinic the results are best. On the whole, attendances have been regular and excuses for non-attendance legitimate.

We feel that if an Attendance Centre is to be successful it must be staffed by skilled professional people experienced with delinquents, and the patients attending must be very carefully selected. If the group is not carefully chosen it can not only get up to mischief at the hospital but also on the way home.

Of the 21 boys admitted to the Attendance Centre during the year, 9 have been discharged and apparently have been in no further trouble. Nine of the remaining boys are still attending the Centre for treatment and of the remaining three one withdrew because of the distance in travelling and two got into trouble after attending once or twice and the treatment was discontinued.

WILSON HOSPITAL—IN-PATIENT SECTION

Wilson Hospital takes as in-patients boys only. All those of school age are retained at Wilson where there is a school. Older boys who are more suitable for trade training and farm training are usually transferred to Westbrook Farm Home. The number of admissions and discharges for the year 1962-63 are shown in Table CV.

TABLE CV

Showing Number of In-patients for Year

Number of in-patients at 1st July, 1962	22
Number of admissions for the year	204
Number of in-patients at 30th June, 1963	19
Average number of admissions per month	17 (Range 8-22)
Average number of discharges per month	17 (Range 7-23)
Daily average of in-patients	26 (Range 17-23)

Average length of stay = 47·5 days (Range 1 day to whole year).

Of the 204 boys admitted during the year 133 were charged with offences against property such as stealing; 53 were charged as uncontrollable and 18 with offences against the person.

The parental situation of 158 boys was investigated and it was found that only 83 lived at home where there were both a mother and a father. The rest were either adopted, fostered or from "broken homes". It seems significant that 33 of these boys lived in a home with their mother but their father was either dead, divorced or had deserted.

Wilson Hospital is functioning well and is getting many good results. Most of these delinquent boys are improved.

The discipline at Wilson Hospital is neither harsh nor over-lenient and the general therapeutic atmosphere of the Hospital can be judged from the fact that during the year several boys, after having been in Wilson for some time, ran away from other institutions back to the Hospital.

WESTBROOK FARM HOME FOR BOYS

A psychiatrist goes from Brisbane weekly to the Westbrook Farm Home. During the year 86 boys were interviewed and examined and 66 boys from previous years were seen again usually for re-assessment concerning discharge.

When the Toowoomba Welfare and Guidance Clinic is fully staffed it is hoped that much more work can be done by the clinic staff at Westbrook Farm Home. Of the 86 boys seen at Westbrook, 69 were there because of offences against property such as stealing. Only 47 of the 86 boys were in a normal home with both parents. The remainder were from "broken homes". As with the patients at Wilson Hospital the "broken home" seems to be a significant factor in delinquency.

SERVICES TO KINDERGARTENS, CHURCH HOMES, &c.

During the year one of our medical officers has been going around the kindergartens in the various suburbs one morning per week. At each kindergarten she conducts group sessions with the mothers, discusses problems with the kindergarten teacher, and the mothers are able to consult her on any child problems which she will refer to the family doctor if necessary. If child guidance treatment is necessary the family will be invited to attend Mary Street on the advice of their family doctor. This service has been very much appreciated by kindergarten directors.

Medical officers have also been visiting Church Homes and hope to visit more of them in the future. Many of the Church Homes have large numbers of child guidance problems and the medical officer is not only able to help the children but to help the staff in the management of these problems. The Division also gives a service to the Handicapped Children's Unit at Chermside. A medical officer visits there frequently assessing the mental development of children and acting in the role of consultant.

TEACHING ACTIVITIES

The staff of the Welfare and Guidance Clinic has been active in teaching during the year. Students in medicine, psychology, social work, speech therapy and occupational therapy have attended the clinic for teaching by staff members. Lectures have also been given to students from the Kindergarten Training College, The Remedial Education Centre, the Sub-Normal Children's Welfare Association, &c. Lectures to nurses have been to those from the Maternal and Child Welfare Department, School Health Services and the College of Nurses. The Division has been co-operating with the State Children Department in providing a course of lectures for the Inservice Training of Welfare Officers, School Nurses, Welfare and Guidance Nurses, staff from Homes, Institutions and others interested in child welfare and child care. There have also been lectures to various community groups by staff members.

PUBLICATIONS—1961-63

"A Nurse's Introduction to Psychology"—A.A.P. Contributions by Drs. Phillips, Nurcombe, and Leggat.

"The Idiot Savant" by Drs. Nurcombe and Parker. American Journal of Orthopsychiatry. Vol. XXXIII., 1963.

"Personal Reaction to Urban Life" by Dr. Nurcombe, in "The Town Planner". (A publication of Q'ld. Branch of A.P.I.) Dec., 1962.

"Neurotic Relationships in Marriage" by Dr. Nurcombe, in Quarterly Review of Q'ld. Marriage Guidance Council. Vol. 1, 1963.

"Treatment of Sub-Normal Children" by Dr. B. J. Phillips, in Queensland Health Magazine.

The officers of the Division of Welfare and Guidance are looking forward to the completion of the In-Patient Unit at the Children's Hospital. This will be a unit with facilities for in-patients, out-patients and day hospital patients. It will have a school, gymnasium, occupational therapy facilities, &c. At the moment the work of the Division is more difficult through not having adequate in-patient facilities and this lack will soon be overcome. Child Guidance facilities of a similar nature will be created in other parts of the State and ultimately there will be a complete Child Guidance service to all areas.

DIVISION OF LABORATORY SERVICES

LABORATORY OF MICROBIOLOGY AND PATHOLOGY

Director: J. I. Tonge, M.B., B.S. (Syd.), D.C.P. (Syd.), M.C.P.A.

Deputy Director: M. J. J. O'Reilly, M.B., B.S. (Syd.), M.C.P.A.

Pathologist: A. Davison, M.B., B.S. (Qld.), M.C.P.A.

Technical Supervisor: D. J. W. Smith, M.Sc. (Melb.)

1. STAFF AND DEVELOPMENT.
2. STATISTICAL SUMMARY.
3. Q FEVER.
    - (*a*) Incidence; geographic and occupational.
    - (*b*) Luoto's Capillary agglutination test.
4. LEPTOSPIROSIS.
    - (*a*) Incidence and geographical distribution.
    - (*b*) Identification of cultures from human sources.
    - (*c*) Leptospirosis survey at Mossman.
    - (*d*) The *canicola* serogroup and identification of serotype *bindjei*.
    - (*e*) Leptospires isolated from wild animals in Australia.
    - (*f*) Aseptic meningitis due to leptospirosis.
    - (*g*) The WHO/FAO Leptospirosis Reference Laboratory.
5. TYPHUS.
6. TUBERCULOSIS LABORATORY.
    - (*a*) The anonymous or unclassified mycobacteria.
    - (*b*) "Medihaler" trial.
    - (*c*) Sterilization of Medihaler nozzles.
    - (*d*) Sensitivity tests for *M. tuberculosis* and the Anonymous mycobacteria.
    - (*e*) Culture v. guinea pig inoculation for *M. tuberculosis*.
    - (*f*) Contamination rate of cultures.
7. TRIAL OF "PROPHEX" AND "PHISOHEX" IN THE PREVENTION OF STAPHYLOCOCCAL COLONISATION IN THE NEW-BORN.
8. PHAGE TYPING OF STAPHYLOCOCCI.
9. WOUND INFECTION SURVEY AT BRISBANE GENERAL HOSPITAL.
10. SALMONELLA ISOLATIONS.
11. HISTOPATHOLOGY.
12. THE RELIABILITY OF THE CYTOLOGICAL DIAGNOSIS OF PULMONARY CARCINOMA.
13. INSTITUTE OF FORENSIC PATHOLOGY.
14. PUBLICATIONS.

1. STAFF AND DEVELOPMENT

During the year 286,000 tests have been performed, an increase of 18,000 over the total for the previous year. Shortage of laboratory space in the existing building makes it increasingly difficult to deal with the demands made upon the laboratory.

The completion of the Health and Welfare building should relieve the present situation and allow for expansion of our existing services. Already details of equipment necessary for the new building have been prepared and certain items are on trial. The staff of necessity will have to be increased to cope with the planned expansion.

The demand for laboratory animals continues to be heavy and it is extremely difficult to provide these. Fortunately the new animal house at the Normanby may be ready for use within 12 months.

During the year the staff have collaborated actively in various projects with the Queensland Institute of Medical Research, and a bacteriologist was seconded to assist in a leptospiral survey in North Queensland.

Assistance has been received from the Brisbane General Hospital, the Princess Alexandra Hospital and the Institute of Medical and Veterinary Science, Adelaide, and this is gratefully acknowledged.

Considerable progress has been made in the standardisation of laboratory procedures and a regular quality control programme is now established in biochemistry. The laboratory again participated in the clinical biochemistry evaluation trial conducted by the College of Pathologists of Australia with satisfactory results.

There has been some re-organisation of the laboratory records and several innovations have been adopted which enable reports to be forwarded more rapidly and specimens handled more efficiently. Valuable advice was received from the Public Service Commissioner's Department in the re-organisation.

The Director is the Queensland representative of the Traffic Injury Research Committee of the National Health and Medical Research Council and attended two interstate meetings during the year. The Director also attended a conference on Aviation Pathology organised by the Department of Civil Aviation in Melbourne in August, 1962.

The medical staff have continued to act as lecturers in Forensic Medicine and conduct regular lecture demonstrations for fifth year Medical students. Several lectures have been given in Microbiology for fifth year medical students and a bacteriologist from the staff acted as demonstrator in Parasitology at the University.

The Deputy Director delivered a paper on the cytological diagnosis of pulmonary carcinoma at the Annual Meeting of the College of Pathologists of Australia in Sydney in 1962.

Now that excellent facilities exist for forensic pathology in Brisbane one would like to see an active research programme established. There is scarcely any research into forensic pathology being conducted in Australia and in few fields is this more urgently needed. Whilst many investigations are in progress at the Institute of Forensic Pathology it is difficult to carry out many of the suggested projects with the present staff and no research funds. It would be of great value to have funds available to enable persons interested in important aspects of forensic pathology to work full time at the Institute. These funds might be made available by the National Health and Medical Research Council which makes grants for projects approved by the Council.

2. STATISTICAL SUMMARY, 1962-63

TABLE CVI

1. Bacteriology

A. Specimens of Human Origin (Non-Tuberculous)

Specimen	Examination			Totals
	Culture	Microscopy	Antibiotic Sensitivity	
Swabs—				
Throat and Nose	110	41	48	199
Urethra, Cervix, Anus, Bartholin's Glands	904	3,178	26	4,108
Ear	72	15	58	145
Eye	17	2	10	29
Other	63	20	40	123
Pus	277	18	236	531
Pleural Fluid	20	19	1	40
Cerebrospinal Fluid	49	97	..	146
Serous Exudate	..	1,026	..	1,026
Sputum	428	45	153	626
Blood	26	..	1	27
Urine	2,040	3,021	683	5,744
Faeces	476	143	8	627
Miscellaneous	16	11	3	30
Total 1962–63	4,498	7,636	1,267	13,401
Total 1961–62				11,764

B. Tuberculosis Section

Specimen	Examination			Totals
	Culture	Microscopy	Animal Inoculation	
Sputum	13,156	13,156	341	26,653
Gastric Aspiration	3,319	..	1,089	4,408
Laryngeal Swab	17	..	..	17
Urine	629	..	264	893
Pus	46	46	38	130
Pleural Fluid	71	71	68	210
Cerebrospinal Fluid	19	19	19	57
Miscellaneous Fluid	9	9	9	27
Bronchial Washing	6	6	3	15
Laryngeal and Tracheal Washing	42	42	1	85
Lung Tissue	46	46	35	127
Cultures	..	144	59	203
Tissue	31	31	33	95
Miscellaneous	11	11	11	33
Total	17,402	13,681	1,970	32,953
Culture	Identification (atypical strains)			168
	Sensitivity test (Streptomycin, P.A.S., I.N.A.H.)			278
	Sensitivity test (Viomycin, Cycloserine and Ethionamid)			168
	Total 1962–63			33,567
	Total 1961–62			31,297

C. Foods and Waters

Specimen	Examination			Totals
	Culture	Plate Count	Reductase	
Water	555	548	..	1,103
Milk	605	603	603	1,811
Cream	40	40	40	120
Other Milk Products	85	84	..	169
Meats and Fish	28	25	22 (precipitation tests)	75
Coconut	10	..	..	10
Miscellaneous	13	12	..	25
Total 1962–63	1,336	1,312	665	3,313
Total 1961–62				3,138

TABLE CVI—*continued*

D. Various Materials

Specimen	Object of Examination	Number
Disinfectants and Antiseptics	Rideal-Walker Co-efficient	48
	Germicidal Value	3
Bottles	Sterility	34
Miscellaneous	Sterility	43
Water Deposit	Iron Bacteria	13
Bacterial Cultures	Identification	17
Skin and Nail Scrapings	Culture	82
	Direct Smear	58
	Antibiotic Sensitivity Test	10
	Total 1962–63	308
	Total 1961–62	323

2. PHAGE TYPING

—	Number
Cultures Prepared	4,867
Coagulase Tests	4,508
Antibiotic Sensitivity Tests	3,242
Phage Type at R.T.D.	3,293
Phage Type at 1,000 X R.T.D.	948
Total 1962–63	16,858
Total 1961–62	7,928

3. SEROLOGY

—	Number
Serum Agglutination (Screen)—	
Salmonella typhosa (O)	16
Salmonella typhosa (H)	4,750
Salmonella paratyphi (H)	4,750
Salmonella schottmulleri	4,750
Proteus O X19	4,768
Proteus O XK	4,768
Brucella abortus	4,756
Leptospira icterohaemorrhagiae	5,613
Leptospira canicola	5,613
Leptospira broomi	5,613
Leptospira zanoni	5,613
Leptospira robinsoni	5,613
Leptospira australis	5,613
Leptospira esposito	5,613
Leptospira pomona	5,613
Leptospira grippotyphosa	5,613
Leptospira medanensis	5,613
Leptospira kremastos	5,613
Leptospira mini	5,613
Leptospira hyos	5,613
Leptospira celledoni	5,613
Leptospira autumnalis	5,613
Leptospira sarmin	388
Leptospira javanica	388
Leptospira schuffneri	388
Leptospira benjamin	388
Leptospira jonsis	388
Leptospira sumneri	388
Leptospira malaya	388
Leptospira ballum	388
Leptospira pyrogenes	388
Leptospira cynopteri	388
Leptospira bankinang	388
Leptospira sentot	388
Leptospira djasiman	388
Leptospira hardjo	388
Leptospira wolfii	388
Leptospira bataviae	388
Leptospira semeranga	388
Leptospira andamana	388
Coxiella burneti (Standard agglutination test)	14
Coxiella burneti (Capillary agglutination test)	2,800
Streptococcus MG	9
Cold Agglutinins	9
Serum Agglutination Tests (Quantitative)	2,197
Paul Bunnell Tests	4,917
Leptospiral Strains Typed (53)—	
Agglutination Tests Performed in Typing	1,200
Absorption Tests Performed in Typing	85
Carried forward	130,968

—	Number
Brought forward	130,968
Complement Fixation Tests—	
Coxiella burneti (Phase I)—	
Routine	14
Quantitative	3
Coxiella burneti (Phase II).	
Routine	5,349
Quantitative	587
Typhus Fever Murine (Soluble)—	
Routine	43
Quantitative	11
Typhus Fever Murine (Washed Rickettsiae)—	
Routine	5
Quantitative	1
Typhus Fever Epidemic (Washed Rickettsiae)—	
Routine	5
Mumps Antigen—	
Routine	4
Quantitative	1
Influenza A Antigen—	
Routine	9
Quantitative	4
Influence B Antigen—	
Routine	9
Quantitative	1
Psittacosis (E.A.E. Virus)—	
Routine	5,353
Quantitative	531
Rickettsia akari—	
Routine	36
Quantitative	7
Kolmer Wasserman (Serum)—	
Routine	9,862
Quantitative	29
Complement Fixation Tests—	
Reiter Protein	525
Kolmer Wassermann (C.S.F.)	475
Reiter Protein (C.S.F.)	4
V.D.R.L.	9,862
Total 1962–63	163,698
Total 1961–62	151,527

TABLE CVI—*continued*

4. Biochemistry

Specimen	Examined For	Number
Whole Blood	Urea	1,189
	Glucose	244
	Uric Acid	684
	Pigments	29
	Bromide	12
Plasma	Protein	1
	Fibrinogen	1
Serum	Protein	1,685
	Cholesterol	421
	Bilirubin	1,011
	Chloride	125
	Calcium	195
	Inorganic phosphate	143
	Acid phosphatase	97
	Alkaline phosphatase	1,002
	Thymol turbidity	937
	Thymol flocculation	937
	Zinc sulphate turbidity	937
	Paper electrophoresis	1,241
	Amylase	14
	Cholinesterase	187
	Sodium	156
	Potassium	154
	Serum Glutamic Oxalacetic Transaminase	313
	Serum Glutamic Pyruvic Transaminase	181
	CO_2 Combining power	24
	Copper Oxidase	1
	Bromide	1
Cerebrospinal Fluid	Protein	97
	Globulin	70
	Chloride	95
	Glucose	77
	Colloidal Gold Reaction	1,194
Pleural Fluid	Protein	4
Abdominal Fluid	Protein	1
	Trypsin	1
	Diastase	1
Urine	Albumin	3,021
	Sugar	3,045
	Pigments	1
	Bilirubin	18
	Urobilin	1
	Urobilinogen	12
	Diastase	2
	Calcium	3
	Sodium	2
	Potassium	2
	Chloride	4
	Coproporphyrins	36
	Porphyrins	13
	Ferric Chloride	1
	Bence Jones Protein	3
	Creatinine	2
	Uric Acid	2
	Haemoglobinuria	2
Faeces	Total, Split and Unsplit Fats	76
	Occult blood	29
	Trypsin	3
Renal Calculi	Chemical constitution	51
Vomitus	Presence of Blood	1
Functional Tests	Glucose tolerance tests	213
	Urea clearance tests	34
	Urea concentration tests	34
	Fractional test meals	49
	Histamine test meals	3
	Total 1962–63	20,125
	Total 1961–62	18,638

TABLE CVI—*continued*

5. Haematology

——	Number
Cell Counts—	
Red Cells (Total)	211
Red Cells (Stippled)	91
Reticulocytes	38
White Cells (Total)	3,785
White Cells (Differential)	4,270
Platelet Count	116
Haemoglobin	10,258
Haematocrit	7,312
Sedimentation Rate	1,058
Coagulation Time	70
Bleeding Time	70
Prothrombin Time	464
Red Cell Fragility	9
Le Cells	28
Latex Slide Test	106
Blood Grouping (A.B.O.)	3,449
Blood Grouping (Rh)	3,449
Rh Antibodies	1,256
Coombs Test	11
Total 1962–63	36,951
Total 1961–62	37,086

6. Parasitology

Specimen	Object of Examination	Number
Faeces	Amoebae (Cysts and Vegetative)	138
	Helminth ova	273
Pus	*Trichomonas vaginalis*	122
Blood	*Plasmodium sps.*	19
Helminth	Identification	22
Arthropod	Identification	1
	Total 1962–63	575
	Total 1961–62	425

7. Various Tests

——	Number
Male Toad Test (Pregnancy)	2,395
Male Toad Test (Pregnancy) (Quantitative)	25
"Cat-Scratch" Skin Test	2
Casoni Skin Test	1
Seminal Fluid Assessment	12
Total 1962–63	2,435
Total 1961–62	2,070

8. Histology

Tissue Sections Prepared	Number
Human—	
Biopsy (specimens received 7,482)	9,878
Medico-Legal Tissues	237
Animal Tissues	52
Total 1962–63	10,167
Total 1961–62	10,371

TABLE CVI—*continued*

9. EXFOLIATIVE CYTOLOGY

Specimen	Number
Sputum	1,372
Bronchial or Tracheal Washing	59
Pleural Fluid	36
Miscellaneous	23
Total 1962–63	1,490
Total 1961–62	1,864

10. MEDICO-LEGAL

Specimen	Object of Examination	Number
Clothing and Various Articles	Blood	295
	Spermatozoa	268
Vaginal Smears	Spermatozoa	97
Tissue	Histopathology	237
Blood	Grouping	11
Bloodstains and Scrapings	Presence of Blood	2
	Determination of Blood Group	71
Skeleton	Indentification	4
Hair	Indentification	42
	Total 1962–63	1,027
	Total 1961–62	857

11. POST-MORTEM

—	Number
Post-Mortem Examinations— Total 1962–63	791
Total 1961–62	794

13. INSTITUTE OF FORENSIC PATHOLOGY

HISTOLOGY

Specimen	Examination	Number
Tissue	Post Mortem	3,928
	Fat Stains	19
	Other Special Stains	64
	Total 1962–63	4,011
	Total 1961–62	2,810

HAEMATOLOGY

Specimen	Examination	Number
Blood	Blood Grouping (A.B.O.)	2
	Total 1962–63	2

TABLE CVI—*continued*

BIOCHEMISTRY

Specimen	Examination	Number
Whole Blood	Urea	1
	Pigments	1
Cerebrospinal Fluid	Glucose	10
	Urea	19
	Glutamine	7
	Creatinine	2
Serum	Protein (including Specific Gravity)	26
	Chloride	26
Urine	Protein	1
	Sugar	1
	Total 1962–63	94
	Total 1961–62	475

BACTERIOLOGY

Specimen	Examination	Number
Swabs—		
Lung	Culture	35
	Microscopic	20
Bronchus	Culture	15
	Microscopic	5
Bowel	Culture	16
	Microscopic	2
Middle Ear	Culture	7
	Microscopic	1
Pericardial Fluid	Culture	4
Kidney	Culture	3
Pus	Acid-fast bacilli (microscopic)	3
Rectum and Vagina	Spermatozoa	4
Heart blood	Culture	16
Tissue	Culture	3
Lung Juice, Bone Marrow, Kidney	Diatoms	17
	Total, 1962–63	151
	Total, 1961–62	124

14. MATERIAL SUPPLIED

To hospitals, private practitioners and local authorities	
Diagnostic kits for tuberculosis	214
Diagnostic kits for bacteriology	6,381
Diagnostic kits for haematology and serology	4,512
Diagnostic kits for biochemistry	661
Media (single units)	112
Total 1962–63	11,880
Total 1961–62	12,300

15. MEDIA

Slopes	83,927
Plates	26,090
Tubes and bottles	58,537
Total 1962–63	168,554
Total 1961–62	103,323
Bulk Media—	
Chemical Solutions	1,075 litres
Stains	163 litres
Total	1,238 litres

3. Q FEVER

(*a*) Incidence: geographic and occupational

During the twelve months, 1st July, 1962, to 30th June, 1963, 222 recent infections with Q fever were diagnosed from Queensland and 18 from New South Wales. A complement fixation titre for *Coxiella burneti* of 1 : 64 or greater in a single specimen or a significant (fourfold) rise in titre in paired sera is regarded as indicative of a probable recent infection. The geographical distribution of these cases is set out in Table CVII. Between June and September, 1962, 16 cases occurred at the meatworks in Cairns. This outbreak was considered to be due to the sudden intake of employees new to the meat industry owing to a local industrial disturbance.

TABLE CVII

GEOGRAPHICAL DISTRIBUTION OF Q FEVER CASES DIAGNOSED IN THE LABORATORY (1ST JULY, 1962—30TH JUNE, 1963)

QUEENSLAND

District	Number
Metropolitan	67
Moreton	39
Maryborough	10
Downs	15
Cairns	35
Townsville	18
Rockhampton	3
Roma	17
South-West	9
Central West	6
Far West	3
Total	222

NEW SOUTH WALES

Northern Rivers	5
Tenterfield	5
Broken Hill	6
Taree	1
Sydney	1
Total	18

The 18 cases diagnosed from New South Wales again give evidence of the wide geographic distribution of the disease in that State. It is of interest that 6 cases occurred at Broken Hill amongst persons associated with the sheep industry. The occupational distribution of the Q fever patients is set out in Table CVIII.

TABLE CVIII

OCCUPATIONAL DISTRIBUTION OF Q FEVER CASES (1st July, 1962—30th June, 1963)

QUEENSLAND

Meat Industry—	
Abattoir workers	122
Occupations associated with abattoirs	18
Total	140
Sheep Industry—	
Shearers and woolclassers	15
Station hands and graziers	16
Total	31
Dairying Industry—	
Dairy farmers	26
Wife and children on farms	9
Total	35
Other occupations—	
Hide handlers	3
Kangaroo Skinners	2
Laboratory assistants	2
Labourers	4
Child	1
Unstated	4
Total	16

NEW SOUTH WALES

Abattoir workers	9
Sheep station hands	6
Butcher	1
Dairy farmers	2
Total	18

(*b*) Luoto's capillary agglutination test

A comparative trial of the capillary agglutination and complement fixation test for Q fever has been carried out on sera from 2,172 patients. Included amongst these were some with both old and recent infections with *C. burneti.*

It was found that the capillary agglutination test (C.A.T.) was of the same order of specificity as the complement fixation test (C.F.T.) but with human sera the sensitivity of the C.A.T., in terms of antibody titre, was lower than the C.F.T. The titres obtained were of the order of ¼ those observed in the C.F.T. This tends to limit the value of the C.A.T. for routine diagnostic purposes with human sera but it could, owing to the simplicity, be employed where facilities for C.F. testing are not available.

The C.A.T. antibody titres obtained in kangaroo sera were equal to those obtained in the C.F.T. and thus the test would be suitable for survey studies on these animals. High C.A.T. titres were obtained in some of a series of sera from wallabies which could not be effectively tested by the C.F.T. because of the occurrence of many anticomplementary reactions. It is known that the C.A.T. is useful for surveys on sheep sera where anticomplementary results are also not uncommon.

4. LEPTOSPIROSIS

(*a*) Incidence and geographical distribution

During the period 1st July, 1962, to 30th June, 1963, serological evidence of recent leptospiral infection was found in 305 patients. Two hundred and eighty-one of these were from Queensland and 24 from New South Wales. The geographical distribution of these cases and the probable causative serotypes are set out in Table CIX. It is to be noted that *pyrogenes, australis, grippotyphosa,* and *hebdomadis* groups have never been isolated in Southern Queensland and thus where serological patterns are found in sera indicative of infection with these serotypes their significance is doubtful at present.

(*b*) Identification of cultures from human sources

During the year 27 cultures from human infections were submitted for identification from the Commonwealth Health laboratory at Cairns. These were classified as *broomi* 4, *canicola* group 2, *zanoni* 3, *australis* 15, *hebdomadis* group 2, and *celledoni* 1.

(*c*) Leptospirosis survey at Mossman

During July and August, 1962, a bacteriologist from the staff was seconded to the Field Station of the Queensland Institute of Medical Research to undertake a survey of animal hosts of leptospires in the Mossman area of North Queensland. A special search was made for carriers of *medanensis* and *grippotyphosa,* two serotypes which had originally been isolated in this area in 1951 and 1954, respectively. Neither serotype had been isolated elsewhere in Australia.

Eight localities were selected for the capture of animals, in four of which, cases of leptospirosis due to *medanensis* and *grippotyphosa* had occurred previously. A total of 170 animals were captured.

Cultures of leptospires were obtained from the kidneys of 22 animals, the strains were identified and the animal hosts classified. The host species and the leptospiral serotypes isolated during this survey are set out in Table CX. It is worthy of note that all five strains of *mendanensis* were isolated from bandicoots. Of the eight strains of *grippotyphosa* recovered one was from a bandicoot and the other seven from a rodent *Rattus s. conatus.*

TABLE CIX

Geographical Distribution and Causative Serotypes in 305 Leptospiral Infections

(July 1st, 1962, to June 30th, 1963)

Serotype	Number
Coastal area of Queensland, North of Rockhampton—	
icterohaemorrhagiae	1
canicola group	11
pyrogenes group	37
australis group	52
pomona	15
grippotyphosa	2
hebdomadis group	11
hyos	18
celledoni	3
Indeterminate (? mixed infection)	5
Total	156
Coastal area of Queensland, Rockhampton to New South Wales border—	
icterohaemorrhagiae	4
pyrogenes group ?	1
australis group ?	6
pomona	72
grippotyphosa ?	1
hebdomadis group ?	1
hyos	20
Indeterminate (? mixed infections)	5
Total	110
Darling Downs and Western Queensland—	
australis group ?	1
pomona	12
hyos	2
Total	15
New South Wales—	
australis group ?	3
pomona	12
hyos	7
Indeterminate (? mixed infections)	2
Total	24

TABLE CX

Leptospiral Serotypes and Host Species, Mossman

Serotype	Number of Strains	Animal Hosts
medanensis	5	*Perameles nasuta* (2), *Isoodon macrourus* (3)
grippotyphosa	8	*Rattus sordidus conatus* (7), *I. macrourus* (1)
bindjei	1	*Melomys cervinipes*
zanoni	4	*M. cervinipes* (2), *Uromys caudimaculatus* (2)
australis	1	*U. caudimaculatus*
hyos	2	*U. caudimaculatus* (1), *Hydromys chrysogaster* (1)
celledoni	1	*I. macrourus*

(*d*) The *canicola* serogroup and identification of serotype *bindjei*

Two *canicola* group strains isolated in the Mossman district of north Queensland, one isolated from *Melomys lutillus littoralis* in 1958 and the other from *Melomys cervinipes* in 1962, have been found to belong to the serotype *bindjei.*

No *canicola* group strains of human origin, from this region, have been examined since the recent acceptance of *broomi* and *bindjei* as serotypes within the group. A current study, however, of some antisera prepared from strains isolated some years ago, but subsequently discarded, indicates that *bindjei* was probably the infecting serotype in human infections near Mossman and Cooktown.

Recognition of the occurrence of *bindjei* in North Queensland brings the number of serotypes known to occur in Australia to fifteen.

Further south in the Babinda district *canicola* group strains, upon which detailed studies have been made, have belonged to the serotype *broomi.* Only two strains have been shown by absorption tests to belong to the serotype *canicola.* These latter were isolated from patients at Mount Sophia and Aloomba respectively, in the central region of the northern sugar belt.

Further studies are needed to define the geographical range of the *canicola* group serotypes occurring in Queensland.

(*e*) Leptospires isolated from wild animals in Australia

A search for the animal hosts of leptospires has been carried out in North Queensland in recent years in association with the Queensland Institute of Medical Research. The identification of the leptospiral strains isolated has been performed in the laboratory.

New host-serotype records have appeared in past Reports from this laboratory and the Research Institute but no complete list has been published. A full list of leptospires isolated from wild animals in Australia to date is set out in Table CXI. The recent isolations from the Mossman area, published in this Annual report are included in the Table CXI.

TABLE CXI

Leptospires Isolated from Wild Animals in Australia to July, 1963

Stereotype	Animal	Common Name
icterohaemorrhagiae	*Rattus norvegicus* (Berkenhout)	Norway rat
broomi	*Isoodon macrourus* (Gould)	Northern short-nosed bandicoot
	R. rattus (L)	House rat
bindjei	*Melomys lutillus littoralis* (Lonnberg)	Smaller naked-tailed rat
	M. cervinipes (Gould)	Larger naked-tailed rat
zanoni	*I. macrourus*	
	R. rattus	
	R. norvegicus	
	R. sordidus conatus Thomas	Canefield rat
	R. assimilis (Gould)	Allied rat
	M. l. littoralis	
	M. cervinipes	
	Uromys caudimaculatus (Krefft)	Giant naked-tailed rat
	Mus nusculus L	House mouse
robinsoni	*U. caudimaculatus*	
	R. s. conatus	
australis	*Perameles nasuta* Geoffrey	Long-nosed bandicoot
	I. Macrourus	
	R. s. conatus	
	R. assimilis	
	R. rattus	
	M. musculus	
	U. caudimaculatus	
grippotyphosa	*I. macrourus*	
	R. s. conatus	
kremastos	*P. nasuta*	
	I. macrourus	
mini, szwajizak	*I. macrourus*	
medanensis	*P. nasuta*	
	I. macrourus	
hyos	*R. assimilis*	
	U. caudimaculatus	
	Hydromys chrysogaster Geoffrey	Water rat
celledoni	*I. macrourus*	
	R. assimilis	
	M. cervinipes	

(*f*) Aseptic meningitis due to leptospirosis

As part of a survey of patients with aseptic meningitis being carried out by the Institute of Medical Research, 39 sera from 22 patients were screened in this laboratory for evidence of leptospirosis. Three patients showed diagnostic rises in titre, two to *pomona* and one to *hyos.* The patient with the *hyos* infection had had leptospirosis due to *pomona* in 1955.

These cases emphasise the fact that leptospirosis should be borne in mind when one is confronted with aseptic meningitis particularly when this occurs in patients belonging to exposed occupational groups.

(*g*) The WHO/FAO Leptospirosis Reference Laboratory

This laboratory is recognised as the official Leptospiral Reference Laboratory for Australasia and the senior bacteriologist is a member of the Taxonomic Subcommittee on Leptospira for the International Committee on Bacterial Nomenclature.

Besides conducting a routine serological diagnostic service for leptospirosis, the laboratory acts as a centre for the identification of leptospiral cultures. Cultures of the world serotypes are maintained and these are available for distribution on request. During the year cultures were supplied to many laboratories within Australia as well as to Poland, Indonesia and Columbia. A number of cultures were received from Indonesia for typing.

A serological survey for leptospiral antibodies in sera from the Christian College at Vellore, Southern India has been completed, 440 additional sera having been examined this year.

Graduates from Adelaide and Port Moresby attended the laboratory during the year for instruction in the laboratory diagnosis of leptospirosis and the maintenance of cultures.

A lyophilising unit has been purchased with a grant to the Reference Laboratory from the World Health Organisation.

Mr. D. J. W. Smith has contributed by invitation to a publication on Leptospirosis and Leptospirae which is being edited by Professor Kathe and Dr. Mochmann of Rostock, Germany.

5. TYPHUS

During the year sera from eleven patients with pyrexias of unknown origin were found to have either rising titres in paired sera or titres of 1:128 or greater in single specimens for *Proteus* OX19. In only six were confirmatory complement fixation titres for *Rickettsia mooseri* obtained. It is considered that all but two of these patients had murine typhus and the distribution of these cases was as follows: Atherton 2, Lismore 3, Townsville 1, Cairns 1, Bowen 1 and Brisbane 1.

The remaining two patients were regarded as having Queensland Tick typhus. One patient was infected in the Cairns area and the other at Mt. Nebo, near Brisbane. Sera from the latter patient gave low titres in complement fixation tests with *R. akari*. In the latter case the diagnosis was recently confirmed at the Commonwealth Serum Laboratory by a rising C.F. titre using a newly prepared *R. australis* antigen.

It is hoped that a *R. australis* antigen will be available soon for routine diagnostic use. This will enable the distinction between murine and Queensland Tick typhus to be made with assurance. In some of the murine typhus patients the failure to demonstrate a titre with *R. mooseri* was probably due either to early intensive antibiotic therapy or to the collection of sera too early in the disease.

Serological evidence of scrub typhus was found in seven patients during the year. The distribution of these cases is as follows: Thursday Island 1, New Guinea 1, Cairns 2, Tully 1, Bowen 1 and Innisfail 1.

6. THE TUBERCULOSIS LABORATORY

There has been an increase in the volume of work referred to the laboratory during the year. This is mainly due to the activity of the mobile X-ray unit in the metropolitan area.

The laboratory is now regarded as a reference centre for the State and more cultures are now referred for identification and sensitivity tests. The demand for laboratory animals has been great.

Fluorescence microscopy has been introduced in an endeavour to cope with the large numbers of slides having to be examined daily.

Two cases of human pulmonary tuberculosis due to bovine strains were encountered. One of these was referred from Rockhampton, the other was an elderly man from Brisbane.

(*a*) The anonymous or unclassified mycobacteria

Since 1959 the anonymous mycobacteria have been grouped according to Runyon's classification. This grouping has been carried out only in those cases where the organism appeared on two or more of the twelve tubes of media inoculated from the three specimens in a series from each patient. In some cases the mycobacteria have been isolated from all three specimens but only one culture has been grouped in these patients. Repeated isolations, when referred to hereunder, indicate that the organism has been isolated from a new series of specimens at some later date. The classification of the anonymous mycobacteria isolated is as follows:—

Group I (Runyon)—
  7 patients, one with 2 separate isolations.
    8 isolations in all.

Group II (Runyon)—
  70 patients: 8 with 2 separate isolations.
    1 with 3 separate isolations.
    80 isolations in all.

Group III (Runyon)—
  210 patients: 34 with 2 separate isolations.
    16 with 3 separate isolations.
    4 with 4 separate isolations.
    2 with 5 separate isolations.
    296 isolations in all.

Group IV (Runyon)—
  54 patients: 3 with 2 separate isolations.
    57 isolations in all.

Group IV *M. fortuitum*—
  18 isolations from 18 patients.

Twenty-six patients have had more than one type of anonymous mycobacterium isolated since the survey commenced. These are as follows:—

Groups III and IV ..	isolated from 9 patients.
Groups II and III ..	isolated from 10 patients.
Groups II and IV ..	isolated from 5 patients.
Groups I, II, and III ..	isolated from 1 patient.
Groups I and II	isolated from 1 patient.

In addition to the above, 167 anonymous mycobacteria were isolated on one only of the tubes of media in a series of specimens. No sensitivity tests or groupings were done on these "casual isolations". Of the 167 strains thus isolated, 96 were chromogens and 71 were non-chromogens.

(*b*) "Medihaler" trial

A trial of the "Medihaler" as a means of obtaining specimens for bacteriological examination from patients without sputum was commenced during the year and is still in progress.

Two specimens of bronchial secretion obtained after the inhalation of 0·25 per cent. sulphur dioxide through the nozzle of a "Medihaler" have been compared with the use of three gastric aspirations from the same patients. Each of the five specimens obtained from each patient has been inoculated onto four tubes of media, and a guinea pig has been inoculated from one "Medihaler" specimen and one gastric aspirate in each series. To date, 127 patients have been included in the trial and it is anticipated that a statistically significant series will soon be available.

This trial has been conducted in association with Dr. Clarke of the Chest Clinic.

(*c*) Sterilization of "Medihaler" nozzles

At the commencement of the "Medihaler" trial a study was made to determine a satisfactory method of sterilizing the nozzles used during the inhalation of the gas. Nozzles were contaminated with the following material, two nozzles being used in each test:—

(*a*) Sputum positive for *M. tuberculosis.*

(*b*) Emulsified culture for *M. tuberculosis.*

(*c*) Sputum positive for Group III anonymous mycobacteria.

(*d*) Emulsified culture for anonymous mycobacteria.

The nozzles were then soaked in one of several disinfectants for varying periods. After this exposure, two tubes of Lowenstein-Jensen medium were inoculated from each nozzle. Guinea pigs were inoculated in those tests where *M. tuberculosis* was used as the test organism. One agar slope was also inoculated.

The various disinfectants tested were—

(*a*) 1/200 "Savlon" in aq. dest. for 2 minutes.

(*b*) 1/30 "Savlon" in 70 per cent. alcohol for 2 minutes.

(*c*) 1/200 "Savlon" in aq. dest. for 2 minutes, then boiled for 30 minutes.

(*d*) 0·5 per cent. "Hibitane" in 70 per cent. alcohol for 5, 10, 20, 30, 45, 60 minutes, and 24 hours, respectively.

It was found that the quickest disinfection occurred, under the conditions of the test, with 1/30 "Savlon" in 70 per cent. alcohol in 2 minutes and 0·5 per cent. "Hibitane" in 70 per cent. alcohol in 10 minutes. Neither "Savlon" 1/200 in aq. dest. or 0·5 per cent. "Hibitane" in 70 per cent. alcohol were successful in killing *M. tuberculosis* after 2 and 10 minutes exposure respectively.

(*d*) Sensitivity tests for *M. tuberculosis* and the Anonymous mycobacteria

Acting on the recommendation of the Subcommittee of the National Tuberculosis Advisory Council the "resistance ratio" has been adopted for all sensitivity testing of *M. tuberculosis* or the anonymous mycobacteria. The "resistance ratio" is the ratio of the minimal inhibitory concentration of a drug for the test strain to that for the standard strain H37RV. A resistance ratio of less than 4 indicates sensitivity, a ratio of 4 indicates that the strain is probably resistant and the test should be repeated. A ratio of 8 or greater indicates that the strain is definitely resistant.

Sensitivity tests are performed satisfactorily for isoniazid, streptomycin P.A.S., ethionamid, cycloserine, and viomycin. As yet none of the techniques tested for pyrazinamide sensitivity has been satisfactory.

The use of the resistance ratio technique has been a considerable improvement and many of the variables occurring in technique and media are no longer of significance. The results obtained are reproducible and of far greater reliability.

The results obtained from the sensitivity tests in the period 1st July, 1962, to 30th June, 1963, are set out in Table CXII for *M. tuberculosis* and for the Anonymous mycobacteria in Table CXIII.

TABLE CXII

RESULTS OF SENSITIVITY TESTS FOR *M. tuberculosis* CULTURES
(Isolated 1st July, 1962, to 30th June, 1963)

Resistance Ratio Method Used

A. *Untreated patients*—	
Total	222
Resistant to Streptomycin, P.A.S., I.N.A.H.	8 = 3·6%
Resistant to P.A.S., I.N.A.H.	4 = 1·8%
Resistant to Streptomycin only	3 = 1·4%
Resistant to P.A.S. only	1 = 0·5%
Resistant to I.N.A.H. only	5 = 2·3%
B. *Treated Patients*—	
Total	47
Resistant to Streptomycin, P.A.S., I.N.A.H.	9 = 19·1%
Resistant to Streptomycin and I.N.A.H. ..	2 = 4·3%
Resistant to P.A.S. and I.N.A.H.	5 = 10·6%
Resistant to Streptomycin only	1 = 2·1%
Resistant to P.A.S. only	1 = 2·1%
Resistant to I.N.A.H. only	4 = 8·5%

TABLE CXIII

RESULTS OF SENSITIVITY TESTS OF ANONYMOUS MYCOBACTERIA
(Isolated 1st July, 1962 to 30th June, 1963)

Results of 171 *strains tested with* 6 *drugs.*

Resistance to Streptomycin, P.A.S., I.N.A.H., Viomycin, Cycloserine, Ethionamid ..	2	(1·2%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Viomycin, Cycloserine	5	(2·9%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Viomycin	49	(28·6%)
Resistance to Streptomycin, P.A.S., I.N.A.H.,	28	(16·4%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Cycloserine, Ethionamid	2	(1·2%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Viomycin, Ethionamid	10	(5·8%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Cycloserine	4	(2·3%)
Resistance to Streptomycin, P.A.S., I.N.A.H., Ethionamid	3	(1·7%)
Resistance to P.A.S., I.N.A.H., Viomycin, Cycloserine	1	(0·6%)
Resistance to P.A.S., I.N.A.H., Cycloserine, Ethionamid	1	(0·6%)
Resistance to P.A.S., I.N.A.H., Cycloserine ..	3	(1·7%)
Resistance to P.A.S., I.N.A.H., Ethionamid ..	1	(0·6%)
Resistance to P.A.S., I.N.A.H., ...	49	(28·6%)
Resistance to P.A.S. only	6	(3·3%)
Resistance to I.N.A.H. only	5	(2·9%)

(*e*) Culture v. guinea pig inoculation for *M. tuberculosis*

A comparison has been made between cultures and guinea pig inoculation for gastric aspiration specimens received during two years. The results are set out hereunder:

Gastric Aspirate: Value of Culture v. Guinea Pig
Inoculation for *M. tuberculosis*

Analysis of specimens processed between 1st July, 1962, and 29th April, 1963:—

(*a*) Number of specimens	830
(*b*) Number of positive cultures ..	41 (5%)
(*c*) Number of contaminated cultures	22 (2·7%)
(*d*) Number of positive guinea pig inoculation tests	41
(*e*) Number of positive cultures with negative results on guinea pig inoculation	8
(*f*) Number of negative or contaminated cultures with positive result on guinea pig inoculation	9

Gastric Aspirate: Value of Culture v. Guinea Pig
Inoculation for *M. tuberculosis*

Analysis of specimens processed between 1st July, 1961, and 29th June, 1962—

(*a*) Number of specimens	865
(*b*) Number of positive cultures ..	45 (5%)
(*c*) Number of contaminated cultures	36 (4·1%)
(*d*) Number of positive guinea pig inoculation tests	45
(*e*) Number of positive cultures with negative results on guinea pig inoculation	5
(*f*) Number of negative or contaminated cultures with positive result on guinea pig inoculation	5

(*f*) Contamination rate of cultures

An analysis was made of the contamination rate of all specimens received during a ten-month period (2nd July, 1962, to 1st May, 1963). The results are—

(*a*) Total specimens processed .		14,056
(*b*) Gross contamination (all four Lowenstein Jensens tubes discarded)	373	
(*c*) Four Lowenstein Jensens tubes with small area of contamination only, on each	128	
Total contamination	501 (3·6%)	

Considering the fact that many of the specimens are received from long distances, on occasions over 1,000 miles, without refrigeration, this overall contamination rate is considered to be not unsatisfactory.

7. COMPARISON OF "PROPHEX" AND "PHISOHEX" IN THE PREVENTION OF STAPHYLOCOCCAL COLONISATION IN THE NEW-BORN

For approximately nine months in 1959-60, a survey was carried out at the Brisbane Women's Hospital using "Phisohex", containing 3 per cent. Hexachlorophene to prevent staphylococcal infection in nurseries. The results were satisfactory and "Phisohex" has been used at the hospital since. Less expensive preparations are now available and a survey was commenced at the Brisbane Women's Hospital in January, 1963, to compare the efficiency of "Prophex" with that of "Phisohex". "Prophex" contains 2 per cent. Hexachlorophene. It was decided to use "Prophex" in one nursery and "Phisohex" in another, the method of application was the same in each nursery, and the babies came from the same labour ward. Both agents were used second daily. In order to overcome factors that might be operating in one nursery and not in the other the nurseries were reversed after 3 months.

A nasal and umbilical swab was taken from all babies admitted to the two nurseries on the day prior to discharge. These swabs were cultured at the laboratory and all the coagulase positive staphylococci were phage typed.

The clinical aspect of this study was carried out by Sister S. Hillard with the co-operation of the hospital superintendent and the staff.

RESULTS OF " PHISOHEX " AND " PROPHEX " TRIAL

First Phase (January–April 10th, 1963)—

	" Prophex " Ward (M1)	" Phisohex " Ward (M2)
Total babies swabbed	285	251
Nasal swabs with Coagulase positive Staphylococci ..	113	64
Percentage positive	39%	25%
Umbilical swabs with Coagulase positive Staphylococci ..	119	105
Percentage positive	38%	42%

Second Phase (April 19th–June 30th, 1963)—

	" Phisohex " Ward (M1)	" Prophex " Ward (M2)
Total babies swabbed	257	222
Nasal swabs with Coagulase positive Staphylococci ..	47	88
Percentage positive	18%	39%
Umbilical swabs with Coagulase positive Staphylococci ..		96
Percentage positive	13%	43%

8. PHAGE TYPING OF STAPHYLOCOCCI

There has been a marked increase in the number of cultures referred for phage typing and these have come mainly from the metropolitan hospitals where systematic infection surveys now take place. Further strains of staphylococci from cows with mastitis have been typed for the Veterinary Department of the Queensland University.

A great increase in the number of non-typeable strains has been noted and all strains which show no lysis with phages at the routine test dose (R.T.D.) are now re-tested with phages at 1,000 x R.T.D. This procedure has almost halved the number of strains which are non-typeable.

At the Brisbane Women's Hospital, 80/81 and 52/52A/80/81 are no longer the dominant strains. They have been replaced by a strain which is non-typeable by phages at R.T.D. and 1,000 x R.T.D. but which shows an inhibition pattern by 6 Group III phages at 1,000 x R.T.D. This strain is sensitive to Chloramphenicol and Erythromycin and resistant to Penicillin, Streptomycin, Terramycin and the Tetracyclines. In one month 29 per cent. of all the coagulase +ve Staphylococci isolated from nasal and umbilical swabs from babies at the Brisbane Women's Hospital belong to this non-typeable strain. It has also been isolated on several occasions from patients at the Princess Alexandra Hospital.

9 WOUND INFECTION SURVEY AT BRISBANE GENERAL HOSPITAL

The wound survey in this hospital commenced in March, 1962, and was completed in September of the same year. The incidence of wound infection after the following operations was investigated: herniorrhaphy, thyroidectomy, mastectomy, cholecystectomy and gastrectomy. All patients undergoing these operations in five different surgical wards were included in the survey. During the investigation operations were classified as "clean" or "potentially infected". Wounds were grouped into three classes according to whether they were absolutely clean post-operatively (Class I), mildly infected (Class II) or discharging pus (Class III). The wounds were inspected during the post-operative stay in the ward and at a special follow-up clinic after discharge from hospital. The results of the survey are given in Table CXIV.

The results given in the Table indicate a very satisfactory incidence of wound infection in the cases followed at this hospital. The survey was conducted by Sister Hillard and the bacteriology performed in this laboratory.

TABLE CXIV

SURVEY OF WOUND INFECTION AT BRISBANE GENERAL HOSPITAL IN FIVE PUBLIC WARDS

Month	Preoperative Classification									
	A[1]					B[1]				
	No. of Patients	I[2]	II[2]	III[2]	%III	No. of Patients	I[2]	II[2]	III[2]	%III
March	9	7	1	1	11	12	11	Nil	1	8
April	46	43	3	Nil	Nil	32	24	4	4	12·5
May	64	59	5	Nil	Nil	34	26	6	2	5·9
June	53	47	5	1	Nil	31	25	4	2	6·5
July	46	43	3	Nil	Nil	20	16	3	1	5
August and September	74	68	5	1	1·4	42	36	2	4	9·5

1. Preoperative Classification—
   A[1] Clean operations.
   B[1] In which gastro-intestinal tract is opened or pus is found at operation.

2. Postoperative classifications—
   I[2] Absolutely clean.
   II[2] Intermediate (red flush, stitch abscess, drain, &c.)
   III[2] Discharging pus from wound site.

10. SALMONELLA ISOLATIONS

Eight salmonella strains were isolated during the year, seven of which were from young children with gastroenteritis. Five of the children were from Brisbane and the types identified were *Salmonella anatum, typhi-murium, newport, give* and *thompson.* One child from Roma in Western Queensland had *S. typhi-murium* and another from the Domadgee Mission in the Gulf was infected with *S. muenchen.* One further strain *S. newington* was isolated from Calphos (Calcium phosphate) used in a metropolitan cordial factory.

The typing of the Salmonellas was carried out at the Salmonella Reference Laboratory, Adelaide.

11. HISTOPATHOLOGY

The temporary arrangement by which biopsies were sent to this laboratory from the Queensland Radium Institute ceased in December, 1962. There has been an increase in the number of specimens received for histopathological examination from metropolitan and country practitioners and hospitals.

There has been a slight reduction in the number of specimens submitted for exfoliative cytology since these examinations can now be carried out at the Brisbane Chest Hospital.

Numerous specimens are submitted from Coronial autopsies in the country. This service is encouraged since it does much to improve the standard of autopsy diagnosis. In many cases of sudden death the cause would remain undetermined were it not for histopathological examination.

Amongst the routine biopsy material examined during the year the following are of epidemiological and pathological interest: Cutaneous melanomata (49 cases); Milkers nodule (4 cases); Sporotrichosis (2 cases); Chromoblastomycosis (2 cases); Lepromatous leprosy (3 cases from Queensland); "Cat-scratch" disease (7 cases); Botryomycosis (1 case); Renal papillary necrosis (4 cases).

12. THE RELIABILITY OF THE CYTOLOGICAL DIAGNOSIS OF PULMONARY CARCINOMA

Between June, 1956, and March, 1962, exfoliative cytology was used to investigate 2,092 patients for lung cancer. A final clinical diagnosis had not been obtained in 241 of these patients and these were excluded from the series together with 71 patients from whom only pleural fluid was received. The remaining 1,780 were analysed as follows:—

Cytology Report	Final Clinical Diagnosis	
	Benign	Malignant
Negative	1,293	121
Suspicious	36	18
Probable	9	15
Positive	7	241
Unsatisfactory	31	9
	1,376	404

Therefore, of 395 cases of malignancy in which a report was possible, 241 (61 per cent.) were correctly diagnosed; 33 (8·5 per cent.) were reported as probably malignant or suspicious; and 121 (30·5 per cent.) were reported as negative.

False positive reports were given in seven cases. Four of these occurred within a period of six weeks in 1957 shortly after the first follow-up reports seemed to indicate that the criteria of malignancy being then used were too strict. In these four cases metaplastic squamous cells were misinterpreted as squamous carcinoma. One similar case occurred in 1958. In the sixth case, which occurred in 1961, clumped and overstained abnormal columnar cells were diagnosed as oat-cell carcinoma, but autopsy soon after showed myocardial infarction and no pulmonary neoplasm. The seventh case occurred recently and the clinical diagnosis may not be correct.

First positive reports (excluding unsatisfactory, suspicious and probable reports). Of the 241 malignant cases diagnosed cytologically 54 per cent. of the first specimens received were positive. Of the remainder the diagnosis was not made until the examination of the second specimen in 20·5 per cent. and the third specimen in 13·5 per cent. (88 per cent. in the first three specimens). In the remaining 12 per cent. the diagnosis was first made on the fourth to the thirteenth specimens.

Number of satisfactory specimens received. Three or more were received from 85 per cent. of cases correctly diagnosed as malignant but from only 59 per cent. of "false negative" cases. Of 305 cases of malignancy with three or more satisfactory specimens only 71 (23 per cent.) were cytologically negative.

Sputum versus Bronchial Aspirate. The records of the 241 patients with positive cytology were analysed and the numbers of positive and negative specimens which they produced were totalled. Of 807 specimens of sputum, 523 were positive and 284 negative. Of 69 bronchial aspirates 32 were positive and 37 negative.

Pulmonary Metastases. The lung tumours were known to be metastatic in 21 of the 121 cases with negative cytology and in 12 of the 241 cases with positive cytology.

It was concluded that sputum seemed to be better than bronchial aspirate for diagnosis, that at least three satisfactory specimens should be examined before accepting a negative report, that at least 60 per cent. of pulmonary carcinomas can be diagnosed cytologically, that false positive diagnoses constituted the greatest hazard but could be minimized with experience, care and close liaison with the clinician; and that only by persistent follow-up of cases could a pathologist assess his results, review his mistakes, and improve his diagnostic efficiency.

13. INSTITUTE OF FORENSIC PATHOLOGY

During the year 791 coronial autopsies were performed. Medical students in their fifth year attended lecture demonstrations on autopsy technique and in addition all students in small groups attended a number of medico-legal autopsies. Lecture demonstrations were also provided for police recruits. Demonstrations of material of neurosurgical interest are regularly conducted.

The detailed study of all traffic accident fatalities has continued in conjunction with Dr. K. Jamieson and his colleagues. The post-mortem findings have been coded and the results are at present being analysed. Blood and urine alcohol estimations are made in all cases dying within 12 hours of an accident and tests for carbon monoxide are made in all drivers. Where appropriate, detailed histopathological and biochemical studies are included.

A retrospective study of traffic accident fatalities on whom autopsies were performed between 1935 and 1963 is being made. The records are satisfactory in most cases and an anatomical distribution of injuries and other valuable data will be available from more than 2,300 persons. This information is being coded and should be available for analysis within the next few months.

In conjunction with Dr. Wright of the Queensland Institute of Medical Research and the College of General Practitioners as many deaths attributable to asthma as possible are being investigated. Since January, 1962, there have been 12 deaths due to asthma. Eight of these have been females and 6 have been under the age of thirty-five years.

With voluntary assistance an investigation is being made into the histories and home conditions of all those in the metropolitan area whose infants have died suddenly either in the neonatal period or in early infancy. A detailed questionnaire has been prepared and it is hoped that factors of epidemiological interest may be discovered.

The search for evidence of myocarditis in young persons dying suddenly has continued. In some cases where the cause of death has been obscure, a focus of myocarditis has been found only after the examination of many sections. Since January, 1960, 35 persons dying from acute myocarditis have been studied. Twenty of them were under the age of 25 years.

The laboratory at the Institute has been extensively used and on occasions the radiological facilities have been of great value. Ten new post-mortem trolleys have been added to the equipment.

Numerous overseas and interstate visitors have been to the Institute and all have commented favourably on the excellent facilities for medico-legal autopsies and on the design and appearance of the building.

In future copies of reports of coronial autopsies outside the metropolitan area are to be forwarded to the Health Department. The cause of death will be indexed and this will provide a possible source of valuable information. It will also enable some supervision to be maintained of the standard of coronial autopsies and recording of the findings throughout Queensland.

14. PUBLICATIONS

STALLMAN, N. D. (with POWELL, O. W.), (1962): "The incidence and significance of Phase I complement fixing antibody in Q fever", J.Hyg., Camb., 60,359.

STALLMAN, N. D. (with DWYER, R. St. C.), (1962): "A serological survey for antibodies to the ornithosis-lymphogranuloma group of viruses in Queensland" (in the press).

TONGE, J. I., and KENNEDY, J. M., (1963): "An outbreak of Q fever in an abattoir near Brisbane", Med. J. Aust., 1,340.

TONGE, J. I. (with DERRICK, E. H.), (1963): "The medical aspects of boxing", Med. J. Aust., 1,869.

QUEENSLAND GOVERNMENT CHEMICAL LABORATORY

Director, Government Analyst and Chief Inspector of Explosives: I. L. B. HENDERSON, B.Sc., A.R.A.C.I.

Deputy Director and Inspector of Explosives: V. R. CUNDITH, B.Sc., A.R.A.C.I.

The Government Chemical Laboratory provides a chemical analytical and advisory service for State Government Departments, a complete service in Queensland for the Commonwealth Departments of Customs and Excise and of Primary Industry, and carries out analytical work for other Commonwealth Departments and for the Territory of Papua and New Guinea.

A total number of 26,023 samples was examined for the twelve month period and the following table (Table CXV) indicates the numbers submitted by the various departments:—

TABLE CXV

SHOWING SOURCE AND NUMBER OF SAMPLES

Source	*Number*
State Departments—	
Health and Home Affairs	7,285
Police	828
Mines	30
Coal Board	737
Portmaster	2,874
Geological Survey	1,155
Tile Testing Station	69
Irrigation	1,450
Local Government	85
Harbours and Marine	169
Main Roads	110
State Stores	523
Public Works	1,661
Housing Commission	3,128
Railways	70
Others	1,032
Commonwealth Departments—	
Customs	1,961
Commerce	1,776
Others	242
Hospital Boards	505
Medical Profession	126
Public	207
Total	26,023

An extremely wide variety of work is entailed in these examinations for so many departments and, the better to cope with this, the Laboratory is divided into four main sections, each in the charge of a Chief Chemist who has had long experience in the work of his particular section.

Accommodation has become a vexed question with the growth of the Laboratory. At the time of the transfer of the Laboratory from the Executive building to its present site, nearly thirty years ago, the total staff numbered twenty. With the increasing demand for the Laboratory's services this number has more than doubled and together with the increasing complexity of modern analytical requirements and more sophisticated analytical techniques the problem of accommodation for staff and instrumentation has become acute. A small offshoot laboratory was established in South Brisbane some years ago which gave some relief but isolation from the main laboratory has many disadvantages including such matters as the lessening of opportunity for staff contact, and access to main library facilities, clerical and typing services, and stores. It is hoped that relief will be offered when the new Health building is completed and more room becomes available in the present building, and that the Laboratory will become one entity again.

Major items of equipment received during the year include a recording ultra violet spectrophotometer and an electro balance which is capable of weighing down to less than one micro-gram. The provision of "compactus" steel shelving in the library has vastly increased available space for books and journals.

The Laboratory also has carried out the testing for safe storage, transport and use of all industrial explosives which entered the State. This year was unique in that two large shipments of explosives were imported from the United States of America. As from 1st January, 1964, it is expected that control of all Government Bulk Explosives Magazines will be transferred to the Chief Inspector of Explosives.

Sectional reports which follow show in some detail the work of the Laboratory.

SECTION 1

FOODS, DRUGS AND WATERS

H. G. DUNSTAN, B.Sc., A.R.A.C.I., Chief Chemist—Officer in Charge

Table CXVI gives the source and number of the samples examined.

TABLE CXVI

Department	Number of Samples
Health and Home Affairs	5,936
Irrigation and Water Supply	1,450
Other Government Departments	814
Local Government	85
Public	183
Total	8,468

TABLE CXVII

SUMMARY OF SAMPLES OF FOODS AND DRUGS EXAMINED FOR THE DEPARTMENT OF HEALTH AND HOME AFFAIRS

Nature of Sample	Number of Samples
Beverage or cordial	153
Bread	295
Cereal	68
Condiment	41
Confectionery	15
Fish	35
Fruit	30
Meat	316
Milk—official	3,087
Milk—unofficial	68
Milk product	71
Beer, wine or spirit	66
Vegetable	10
Disinfectant or insecticide	44
Drug or medicine	183
Paint or paint scraping	274
Pencils	164
Tobacco	127
Toilet preparation	12
Toy	140
Miscellaneous	227
Total	5,426

The miscellaneous samples include cooking fats and oils, ginger, nuts, meat marking dyes, food wrapping paper, flooring materials, water filter, poison baits, textile, cosmetics.

TABLE CXVIII

DETAILS OF LEGAL SAMPLES TAKEN BY INSPECTORS IN ACCORDANCE WITH THE PROVISIONS OF "THE HEALTH ACTS, 1937 TO 1962"

Nature of Sample	Number Examined	Passed	Failed
Milk	3,080	2,902	178
Bread	3	3	0
Minced meat	192	146	46
Sausage	95	64	31
Cream	9	9	0
Fruit drink	4	3	1
Spirituous liquor	26	3	23
Pickle	1	1	0
Paint	76	70	6
Paint scraping	110	35	75
Toy	74	8	66
Drug	2	1	1
Kerosene	2	0	2
Flock	1	0	1
Totals	3,675	3,245	430

MILK

Thorough sampling of milk provided 3,080 legal samples, only 67 fewer than the record 3,147 of the previous year.

These samples gave the following results:—94·2 per cent. conformed with the prescribed standard, 3·4 per cent. were deficient in fat, 1·9 per cent. were naturally poor and 0·5 per cent. were adulterated with water.

Sixteen watered milks were received and these came from:—Brisbane (2), Charters Towers (2), Cleveland (1), Currumbin (1), Gladstone (3), Gympie (1), Maryborough (1), Rockhampton (1), Tinana (3) and Toowoomba (1).

The average fat content was 3·92 per cent.

Pasteurised milks were tested regularly and were of uniform and satisfactory composition throughout the year. Correct pasteurisation was shown in all but one sample and the bottles were found to be clean.

MEAT

With 192 samples of minced meat the presence of the preservative, sulphur dioxide, was the reason for failure of 46 (twenty-four per cent). The incidence of this adulteration was a little greater than that of last year but much below those of previous years. It is, however, still unsatisfactory and continued intensive sampling may be expected.

The composition of sausages on the market was thoroughly investigated and analysis of 95 samples showed excessive use of sulphur dioxide in many and deficiency of meat content in several. The standard for sausages requires the presence of, at least, 75 per cent. of total meat (lean meat plus fat).

Tests made for nitrates in corned products showed no excessive proportions.

FLOUR

Samples were taken at the flour mills and of 66 samples 4 were found to be unsatisfactory. There was insufficient wholemeal in two brown bread flours and one wholemeal bread flour and a "protein-rich" flour was low in protein content. More frequent sampling is necessary to maintain the standard of these products.

White flour was of good quality throughout the year, averaging 12·4 per cent. of protein.

BREAD

A close inspection of quality was made on all samples and no major faults were observed. The quality was generally fair and few samples were classified as either excellent or poor.

Samples from country centres formed a reasonable proportion of the survey.

In respect of composition there were few failures and the position here is regarded as good. Only three legal samples were submitted and all passed.

The Department of Weights and Measures required the dry solids content of 76 loaves and the milk solids of 12 loaves.

FRUIT AND VEGETABLES

In these the main concern lies in the occurrence and extent of pesticidal residues. The samples examined were reasonably free from toxic substances but an excessive residue of relatively harmless nature on tomatoes prevented their sale till cleansed.

Experimental work on analytical procedure was done and it is hoped to extend the scope of investigation of spray residues in the coming year.

Colouring of citrus fruits with the dye Citrus Red No. 2 is permitted but each fruit must be marked "artificially coloured." Two consignments of mandarins were withdrawn from sale because of absence of this declaration.

BEER

Twenty-one samples, representing a full range of beers on sale, were analysed. The following average result was found:—

Proof spirit—8·64 per cent. (Alcohol—4·96 per cent. by volume)

Total solids—3·43 per cent.

Ash—0·13 per cent.

The samples contained no preservative, no arsenic and below one-tenth of a part per million of lead.

DRUGS AND MEDICINES

Drugs were tested for conformity with prescribed standards. Surveys of aspirin tablets, A.P.C. powders and hydrogen peroxide revealed only one faulty sample—peroxide leaking badly and below required strength.

Work was done for hospitals in checking preparations and in measuring the rate of dissociation of aspirin in aqueous mixtures.

Dangerous drugs in deteriorated condition were received from hospitals and chemists for official destruction.

Much advice was sought in the scheduling of new drugs and preparations of drugs for the purposes of "The Poisons Regulations of 1958."

DANGEROUS SUBSTANCES REGULATIONS

These regulations define packing and labelling requirements for substances not included in the Poisons Schedules but commonly present in the household and of danger to young children.

A diverse range of preparations was received for analysis and opinion was given as to whether they were subject to the regulations.

With modern apparatus and methods the laboratory was able to do these analyses accurately and expeditiously.

OTHER GOVERNMENT DEPARTMENTS

These Departments were assisted by the examination of 239 samples which included:—flour, bread, washing powders, marking inks, hypodermic syringes, cigarettes, tobacco, wine, toilet papers, drinking straws, drugs, and a pH meter.

For Papua and New Guinea, samples of tea and insecticides were tested.

MISCELLANEOUS

Cream samples (32) were consistently good in milk-fat content.

Four brands of ice-cream were satisfactory.

Soft drinks and cordials (148) almost all conformed with requirements.

Condiments—Pickles (12), tomato sauce (11), salt (9)—conformed with prescribed standards.

Colouring of foodstuffs was with permitted dyes in allowed proportions but meat marking dyes were rejected for containing non-permitted dyes.

A complaint sample of fish paste had highly coloured particles-pieces of cooked bone in which the artificial colour had concentrated.

Fish from a tailings dam at Mount Isa was tested for various poisonous metals and judged fit for human consumption.

Goat milk was found true to name but contained added water.

A medicine—compound syrup of glycerophosphates—containing a sediment, had three times the correct caffeine content.

Blue-coloured ether was contaminated with a dye, probably from a marking pencil.

Morphine sulphate ampoules contained black specks of carbon possibly caused by charring in the sealing of the ampoules.

Finger-nail hardening preparations contained formaldehyde.

Foreign objects in food were few. They were:—cigarette in sausage, cockroach in fish rissole, blow-fly in waffle pie and glass in sandwich.

Pencils (164) were tested for lead and were very satisfactory.

Washing powders and sodium metasilicate powders were analysed for the State Stores Board and some contained too much fine alkaline powder, irritant to laundry workers.

WATERS SUB-SECTION

Two thousand seven hundred and ninety-five samples of water, sewage and industrial waste were examined during the year.

These were submitted by various State and Commonwealth Government Departments and the general public. The sources and corresponding numbers of samples are given in Table CXIX.

TABLE CXIX

Source	Number of Samples
Water—	
Department of Health and Home Affairs	510
Irrigation and Water Supply Commission ..	1,450
Department of Local Government	85
Department of Harbours and Marine ..	169
Miscellaneous Government Departments ..	242
Public	179
Sewerage and Industrial Waste—	
State Government Departments	129
Commonwealth Government Departments ..	31
Total	2,795

The number of samples examined for the Irrigation and Water Supply Commission fell by over 300 during the year, but this was due mainly to the current policy of the Commission of determining the Electrical Conductivity of waters received by them and passing on to this Laboratory only those samples which warrant full chemical analysis.

The increase in the number of samples from Miscellaneous Government Departments resulted from the submission by the Geological Survey and Mines Department of a considerable number of water samples collected at different depths from bores drilled by oil companies in their intensified search for oil in this State. Analyses of these samples provide useful information as regards suitability of the water from a bore as injection water to assist in the maximum recovery of oil bearing strata, and also in the assessment of the oil producing potential of geological structures.

SECTION 2

TOXICOLOGY, BIOCHEMISTRY, INDUSTRIAL HYGIENE AND AIR POLLUTION

G. Lahey, M.Sc., A.R.A.C.I.—Officer in Charge

The total number of specimens submitted for analysis by this section was 2,968.

TOXICOLOGY

Of a total of 711 specimens examined during the year, 589 were in connection with 189 post-mortem examinations. The majority of these examinations were at the request of coroners throughout Queensland.

Various barbiturate drugs were associated with 96 of these, the most commonly found being pentobarbitone (42) and carbrital (20). Other poisons found included alcohol (5), chloral (4), cyanide (3) organic phosphorus compounds (3), sodium nitrite, methyl salicylate, arsenic, strychnine.

Of the remaining examinations 68 did not disclose any poison but were considered necessary to exclude poison as a possible cause of death.

Six sets of specimens of animal viscera (two dogs, two cows, a pig, and a horse) were examined. One of five suspected poison baits examined proved to be a portion of a stick of gelignite. Other specimens examined included foodstuffs, water, clothes, anaesthetics, drugs.

Evidence in court was given in a number of cases.

BIOCHEMISTRY

Biochemical specimens were examined for the Laboratory of Microbiology and Pathology, Government Medical Officers, Police Department, the Director of Industrial Medicine, Hospitals and medical practitioners. The nature, significance, and number of such specimens are shown in Table CXX.

TABLE CXX

Nature of Specimen and Significance	Number of Specimens
Blood and Urine for alcohol	1,146
Urine, Blood and Bone for lead	684
Hair, Nail and Urine for arsenic	147
Blood, Urine and C.S.F. for drugs	72
Stomach Washings for drugs	73
Blood for carbon monoxide	25
Miscellaneous	17
Total	2,164

The miscellaneous item includes estimations of copper in urine, blood and liver, mercury in urine, lead in water.

Determinations of alcohol in blood and urine are carried out for Government Medical Officers (chiefly in connection with charges against motorists), for the Police Department (chiefly in connection with road accident investigations) and for Government Pathologists, who submit post-mortem specimens in appropriate cases.

INDUSTRIAL HYGIENE

Excluding biochemical specimens, the number of samples examined for the year was 85.

Eight investigations were undertaken during the year including:—

Hazards associated with the Methyl Bromide fumigation of railway wagons at a bulk wheat installation.
Lead in air at a metal recovery plant.
Chromic acid mist at a metal plating works.
Experimental use of Toluene di-isocyanate by a motor body manufacturer.

Dust counts at a mineral processing firm.

A survey of urinary arsenic excretion in banana growers for the Department of Agriculture and Stock begun the previous year was completed. In association with this survey, the section investigated atmospheric arsenic contamination from two spraying machines and a misting machine while in use for banana spraying.

AIR POLLUTION

Eight specimens examined during the year were chiefly samples of deposit related to industrial pollution problems.

A survey of deposited pollution and smoke in Brisbane is continuing.

SECTION 3

MINES MINERALOGY, METALLURGY AND EXPLOSIVES

V. R. Cundith, B.Sc., A.R.A.C.I.—Officer in Charge

Table CXXI shows the sources of work done by this Section and the number of samples from each to account for the total of 5,262 samples.

TABLE CXXI

Department	Number of Samples
Geological Survey and Mines Department ..	1,185
Coal Board	737
Portmaster (Explosives)	2,874
Other Departments (includes tiles)	407
Commonwealth Departments	39
Public	20
	5,262

MINES DEPARTMENT AND GEOLOGICAL SURVEY

General

This work is mostly concerned with the assay of the ores of gold, silver, lead, zinc, tin, copper, manganese, beryllium, chromium, graphite, rare earth oxides, &c. Minerals such as magnesite, bentonite, beryl were also analysed.

Analyses

	Per cent.	Per cent.
Damourite (ex Mica Creek, Mount Isa)—		
Silica (SiO_2)		45·0
Combined Oxides (R_2O_3)		39·3
Potassium Oxide (K_2O)		11·0
Sodium Oxide (Na_2O)		0·5
Magnesia (MgO)		0·2
Calcium Oxide (CaO)		0·2
Moisture (H_2O)		4·6
Manganese Oxide (Mn_3O_4)		0·05
Iron as (Fe_2O_3)		0·1
Tantalite (ex Mica Creek, Mount Isa)—		
Tantalum Oxide (Ta_2O_5)		73·6
Niobium Oxide (Nb_2O_5)		13·0
Titania (TiO_2)		1·2
Mn as MnO		7·5
Fe as FeO		3·5
Sn as (SnO_2)		0·4
Uranium		detected
Rare Earths		detected
Iron Ore (ex The Caves, Rockhampton)—		
Iron (Fe)	65·6	6·08
Silica (SiO_2)	2·6	1·6
Phosphorus P	0·04	0·08

OIL AND GASES

Samples of mine air were received from the collieries and bore gases, oil, sludges, and waters were received in connection with "search for oil" projects.

Three Gas samples taken from behind the seals across the drives between the Aberdare and Four Foot seams at Blackheath No. 1 Colliery assayed.

	1 Per cent.	2 Per cent	3 Per cent
Oxygen	2·7	0·9	2·4
Nitrogen	52·8	50·1	53·4
Carbon dioxide	4·2	4·3	4·0
Methane	40·3	44·7	40·2

Natural Gas (Sunnybank No. 1 Bore)—	
Methane	65·8
Ethane	10·1
Propane	9·7
Butane iso	3·8
Butane normal	4·3
Pentane iso	1·63
Pentane normal	1·47
Hexanes plus	0·97
Nitrogen	1·17
Oxygen	1·04

COAL

The coal and coke work continues to maintain pressure and it constitutes a great proportion of the total work performed in this Section.

It is derived from the drilling activities undertaken by the Mines Department in exploratory drilling and proving reserves.

Calorific value, proximate and ultimate analysis, ash, fusion point of ash, specific gravity, sulphur and swelling indices are usually required.

In addition to the above, large scale washability tests are usually carried out for the Coal Board to determine amenability of coal to treatment and checks are made for maintenance of quality of colliery or open-cut output.

Of interest are the results of analyses of two shipments of unwashed coal exported to Japan.

	Kianga Coal	Moura Coal
Tonnage	13,694 tons	11,392 tons
Composite Sample—	Per cent.	Per cent.
Equilibrium Moisture	5·0	4·6
Proximate Analysis—		
Moisture at 105°C	3·6	2·7
Volatile Matter	33·9	25·0
Fixed Carbon	55·5	65·0
Ash	7·0	7·3
	100·0	100·0
B.Th.U. per lb.	13,020	13,090
Sulphur—	Per cent.	Per cent.
Sulphate	0·07	0·21
Pyritic	0·15	0·10
Organic	0·23	0·12
Phosphorus P	0·061	0·062
Chlorine (Cl) less than	0·01	0·01
Specific Gravity	1·334	1·355
	Kianga	Moura
Ultimate Analysis (Dry Ash free)—	Per cent	Per cent.
Carbon (C)	84·19	86·81
Hydrogen (H)	5·44	5·07
Nitrogen N	1·85	1·80
Sulphur (S)	0·50	0·48
Oxygen (O)	8·02	5·84
Ash—	Degrees	Degrees
Softening Point °C	1,410	1,250
Melting Point	1,460	1,320
Ash Analysis—	Per cent.	Per cent.
Silica SiO_2	49·5	48·6
Alumina Al_2O_3	36·6	35·0
Phosphoric Anhydride (P_2O_5)	2·0	1·95
Ferric Oxide (Fe_2O_3)	7·2	4·9
Titanium Oxide (TiO_2)	2·3	1·5
Managanese Oxide (Mn_3O_4)	0·08	0·15
Calcium Oxide CaO	Trace	1·8
Magnesium Oxide MgO	1·3	1·4
Sodium Oxide (Na_2O)	0·3	0·7
Sulphuric Anhydride (SO_3)	0·3	1·4
Potassium Oxide (K_2O)	0·8	3·0

OTHER DEPARTMENTS

The consultative and analytical work from the Government Departments covered a range of materials such as cutlery, galvanised iron, bricks, clays, corrosion products, Golden Casket discs, reactivity of aggregate tests, plating powder, talc, slaked lime, &c.

Efflorescences

With the advent of wet weather complaints were received from the Housing Commission concerning appearance of efflorescence in dwelling bricks.

These deposits can be disfiguring and troublesome, and are due to salts acquired by water during its passage through or over back filling, bricks or mortar. The drying out after a shower draws the solution to the surface where soluble salts are deposited. Should vanadium salts be present a yellowish to greenish or partly brown colour develops.

White deposits usually consist of sulphate or carbonate of sodium, magnesium and calcium.

Bricks should conform to standard specifications appropriate for the purpose required.

Corrosion Product

A white deposit on a water meter fitting consisted of basic zinc-carbonate, carrying about 12 per cent. siliceous material with minor proportions of iron oxide and copper carbonate.

The metal surface showed evidence of dezincification.

It is unusual to find basic zinc carbonate as an incrustation on a dezincified surface. The water was neutral and had a low conductivity.

Another example of deterioration concerned the use of a fibre glass reinforced polyester cover on a battery charging unit.

The cover showed the damage incurred by entry of acid mist and spray into its structure. This was evident around the edges which were encrusted with sodium sulphate.

In some areas lifting and fracture of surface had occurred; this was due to the entry of acid via pinholes and by the "wicking" action of fibre glass, whereby exposed fibres transmit liquid into the structure.

The boro silicate fibre glass has the better physical and chemical quality.

Aviation oxygen supplies to the RAAF were regularly tested throughout the year. All samples conformed with the specification.

On two occasions evidence was given in the N.S.W. Courts, Sydney, concerning the examination of an improvised bomb, with which a man threatened to blow up a T.A.A. plane on a flight from Sydney to Brisbane.

Explosion at Townsville (Bulk sugar storage plant)

An officer visited Townsville on 19th May, 1963, to assist in the examination of circumstances surrounding a small explosion which occurred a few days after quelling the large fire at the bulk sugar storage plant at Townsville.

It was found that dilute solutions of sugar which had been washed into ground filling under and around the installation during fire-fighting operations had provided an excellent medium for the growth of gas forming micro organisms.

The principal gases produced were hydrogen, carbon dioxide, and other volatile derivatives from the fermenting sugar.

Small pockets of inflammable gas were found in the less ventilated places. These were sampled and forwarded to the Laboratory, Brisbane where they were analysed by gas chromatograph.

One sample assayed:

	Per cent.
Hydrogen	28·0
Methane	0·25
Carbon dioxide	68·5
Air	3·3

The explosion had occurred when a power switch was disconnected in a small room. Emissions of hydrogen from fractures in the foundations had formed an explosive mixture with air with subsequent ignition by the flash.

SECTION 4

FEDERAL DEPARTMENTS, PUBLIC WORKS, HOUSING COMMISSION, STATE STORES, &c.

R. S. POTTER, A.R.A.C.I., Chief Chemist—
Officer in Charge

Table CXXII gives a detailed list of the number of samples examined by this section:

TABLE CXXII

Customs and Excise	1,554
Primary Industry	1,776
Queensland Housing Commission	3,128
Public Works Department	1,661
States Stores	523
Main Roads Department	110
Fireworks	407
Other Government Departments	163
Public	3
Total	9,325

This is an all time record for this section, being 1,400 ahead of the previous record of 7,935 in 1960-61.

The work in this section is becoming increasingly diverse particularly in the work performed for the Federal Department of Customs and Excise. Although the number of samples examined is below previous years the work entails far more investigation due to the complexity of the samples involved particularly in commercial chemicals, textiles, plastics and oils, in order to ensure correct tariff classification.

The samples submitted through the Department of Primary Industry are similar to previous years and ensure that the exports of dairy products, &c., are maintained at the levels set out in their respective specifications. This department is asking for extra work to be carried out on some lines, particularly milk products, honey and eggs as overseas buyers are demanding more rigid specifications than previously. The working up of new methods, naturally is very time consuming, but necessary.

The number of samples examined for State Stores is about equal to previous years and covers a vast range of items purchased by this Department. This work is of very great assistance to the Stores Board particularly in the allocation of tenders and quotes which are being constantly called for. The follow up examination of delivery samples maintains a close watch of the accepted lines.

The Avery Textile Testing Machine installed in a temperature and humidity controlled room has now been calibrated and is in excellent working order and ensures a very good control under the required standard conditions of all textile samples submitted.

The number of paint samples submitted through the Queensland Housing Commission and the Department of Public Works has increased enormously during this period; the Housing Commission alone having a 100 per cent. increase over the previous year in the number of samples examined. The work in this Paint Section is beginning to get out of hand and if the present rate of influx of samples is maintained, extra staff and accommodation will be necessary to keep abreast of the number of samples submitted by these Departments. At the present time the working of overtime is being resorted to in order to try and cope with the work on hand. The general standard of paint being used by contractors is very good and at least 95 per cent. of all samples examined conform to the required specifications.

Fireworks are still being examined to ascertain conformity with the regulations and will after this year come under the direct supervision of the Explosives Section of the Laboratory.

The work performed for all other departments, as mentioned in the Summary, covered the usual variety of samples, the chief of which being clinical sutures for the Advisory Committee on Hospital Drugs and Surgical Appliances and textiles (particularly Serge) for the Railway Department.

DIVISION OF GERIATRICS

Director of Geriatrics: P. G. LIVINGSTONE, M.B., B.S. (Qld.), M.R.C.P. (Ed.)
Medical Officer: M. CHEONG, M.B., B.S. (Qld.)

GERIATRIC UNIT, PRINCESS ALEXANDRA HOSPITAL

The Geriatric Unit was officially opened on 19th May, 1963. This Unit consists of two wards with accommodation for 102 in-patients, Administration Section, Day Hospital, Physiotherapy and Occupational Therapy Departments.

The first ward was occupied on 10th July, 1961, and the second ward on 3rd October, 1962. The Day Hospital officially commenced on 22nd May, 1963, but day patients had been attending the in-patients' wards since the beginning of Ward S4.

The wards are not evenly divided between male and female patients. At the moment there are 64 female beds and 38 male beds. The number of male beds was increased early this year with conversion of one cubicle of six female beds, to the male section. This proportion of two female beds to one male bed is the number that is usually required in the Geriatric Unit.

The following are details of admissions and discharges from the Geriatric Unit for the period 1st July, 1962, to 30th June, 1963.

TABLE CXXIII

SHOWING ADMISSIONS AND WHERE FROM

Sex	Total	Princess Alexandra Hospital (Acute) Section	Princess Alexandra Hospital (Chronic) Section	Brisbane Hospital	Private Homes	Private Hospitals	Convalescent Homes	Eventide Sandgate	Country Hospitals	Repatriation General Hospital
Males ..	178	81	11	32	37	6	3	1	4	3
Females ..	319	161	22	46	63	14	6	..	6	..
Totals ..	497	242	33	78	100	20	9	1	10	3

TABLE CXXIV

DISCHARGES—TRANSFERS—DEATHS

Sex	Total	Home	Princess Alexandra Hospital (Acute) Section	Princess Alexandra Hospital (Chronic) Section	Eventide Sandgate	Convalescent Homes	Brisbane Hospital	Died
Males	164	87	13	28	9	9	4	14
Females	277	151	10	25	9	49	6	27
Totals	441	238	23	53	18	58	10	41

It will be noted from Tables CXXIII and CXXIV that half of the patients were admitted from the Acute Section of Princess Alexandra Hospital. A quarter were admitted directly from their homes, convalescent homes or private hospitals. The remainder came from the Brisbane Hospital and the Chronic Section of Princess Alexandra Hospital. In a further analysis of patients admitted from the Acute Section of the Princess Alexandra Hospital it was found that 59 patients were admitted from the Orthopaedic wards for rehabilitation. There were no patients admitted from the Orthopaedic wards at the Brisbane Hospital. In comparing both sets of tables it will be seen that 33 patients were admitted from the Chronic Section of the Princess Alexandra Hospital and 53 patients were sent to this Section. In respect to males almost as many were taken from the Chronic as were sent. With females it is a higher proportion than last year. This does not mean that every patient discharged was independent. Many patients were discharged to their families or other institutions, and required considerable help. The number of patients discharged to convalescent homes has increased, particularly in respect to females. This was more evident in the early part of the year, but lately more convalescent homes have altered their requirements for admission, thus excluding many of our patients who would have been suitable.

Every patient referred to the Unit is seen by a Medical Officer. This is to ensure that patients who will benefit by the facilities and treatments available are admitted. The criteria for admission are very broad and patients have been accepted if there is any chance of improvement. During the year a number of younger patients have been accepted if their condition or disability is similar to the types of disabilities found in the elderly. Most of these patients have settled in very well. Many have been discharged and some have even returned to work.

The Director has carried out 82 home visits during the year with the full approval of the patients' private doctors.

The following are details of home visits carried out:—

TABLE CXXV

HOME VISITS AND ACTION TAKEN

Sex	Total	Admission Geriatric Unit	Admission General	Princess Alexandra Hospital Chronic	Geriatric Out-patient Clinic	Day Hospital Attendance	Admission Convalescent Home	Admission Eventide	Admission Mental Hospital	No Action Taken
Males ..	29	13	1	..	..	2	1	3	3	6
Females ..	53	30	1	8	1	4	3	2	4	..
Totals ..	82	43	2	8	1	6	4	5	7	6

More than half of the patients seen on home visits did not require admission to hospital and this, in some small way, will have saved hospital beds. Also, it allowed for an early admission of patients to the Geriatric Unit who required that treatment. Many visits have also been made by various members of the staff after patients have been discharged and out of this has developed a Home Evaluation Programme. Details of the patient's home are recorded on an extensive form which is filled in by the person making the home visit. Recommendations are made to the patients and his family on alterations or additions to the home which will allow him to live more independently. It is hoped that facilities and staff will be available to allow this important service to be extended.

The Chronic Wards of Princess Alexandra Hospital are separate from the Geriatric Unit but under its control. At present there are 96 male beds and 112 female beds. Over the past year 88 female patients have been admitted and 112 male patients. These figures indicate that patients in long-stay wards live longer than one would have anticipated. Some of the Chronic wards are old and require renovation. This is proceeding and it is hoped that within the next year all of the older buildings will have been replaced.

The Geriatric Out-patient Clinic is held in the main out-patient building of the hospital. This clinic is used as a follow-up of past in-patients and for assessment of new patients referred to the Geriatric Unit. During the year it has been used extensively by other out-patient clinics. The number of patients seen has increased and it is hoped to have a second out-patient clinic in the near future.

The staffing of the Geriatric Unit has been increased. It consists of the Director of Geriatrics, a consultant physician, medical registrar, resident medical officer, full-time social worker, speech therapist, four physiotherapists and three occupational therapists. The Unit is very grateful for the help it receives from the Red Cross Handicrafts instructors.

The speech therapist commenced duties on 12th September, 1962. She started with one session per week, which was increased to two sessions and then three sessions per week. Forty-three patients have been treated, approximately ten patients at each session.

The opening of the Day Hospital has allowed a considerable expansion of services and facilities from this Unit. The Day Hospital is the most interesting of all the developments. Many problems have yet to be resolved, but at the moment the Day Hospital is providing a service which is better than anyone would have anticipated. An average of 30 patients attend each day. They are brought by ambulance and receive various types of medical treatment and therapy. A mid-day meal is also provided. Adjoining the Day Hospital is the physiotherapy gymnasium which contains all equipment required for Geriatric rehabilitation. The Occupational therapists play a large part in the programme. They have been responsible for the development of recreational activities as well as the usual service and facilities provided in such a department. During the year 210 day patients have received treatment. During the month of June, 1963, 47 male and 57 female patients were treated. The Day Hospital is run by a sister and an assistant nurse. One physiotherapist is occupied fully with these patients. Most of the patients treated have physical disabilities. A few patients attend because of mental deterioration and social difficulties. It has been found that patients with mental deterioration are upsetting to patients with physical disabilities and also nursing staff have to watch them much more closely. If any number of these patients is required to attend a Day Hospital, then such a hospital has to be adapted for their needs.

The splint department at the hospital has again supplied a large number of splints to Geriatric patients. Most of these have been for hemiplegic patients with foot drop. Further modifications have been carried out with other types of calipers in an endeavour to improve the standard and increase the variety of splints available. Details of calipers supplies are as follows:—

Capener wires	17
Double below knee irons	69
Single below knee irons	1
Long weight-bearing calipers	2
Long weight-bearing calipers with knee lock	1
Long non-weight-bearing calipers	12
Long non-weight-bearing calipers with knee and ankle joints	1
Long non-weight-bearing calipers with hip joint	1
Knee cage	1
Hand splints	2
Total	107

Nineteen calipers have been repaired and altered during the year and 184 separate pieces of equipment have been made by the splint department for the Geriatric Unit.

An investigation is being carried out into various aspects of nursing the elderly sick, with particular emphasis on the development of bed sores and contractures. New types of slings, suspension and splinting have been used. Every effort has been made to try to assess the various medical and other factors which play a part in this problem. Together with this investigation has gone a specific assessment of "Medi Rugs." The investigation was carried out initially with six "Medi Rugs"—one size "A" natural shape and five "Medi Cushions." The number of rugs has been increased so that a more careful assessment of their value can be obtained. Various types of mental and physical tests have been investigated in an endeavour to assess the rehabilitation potential of elderly patients. The results of these tests have helped considerably in the overall assessment of patients referred to the Geriatric Unit.

"EVENTIDE", SANDGATE

The Medical Officer, Geriatrics, attends this home each working day. This has assisted considerably in providing a more balanced medical programme. The number of patients in the home who require regular medical attention has increased. Improvements are planned in the form of new medical charts, pathology tests and postmortem examinations.

GERIATRIC CONFERENCES

The Director has attended two Geriatric conferences during the past year. In November, 1962 he was asked to speak in Melbourne and in April, 1963 at Launceston. These conferences have helped the Director in collecting information and formulating new programmes. Whilst in Tasmania, the Director was invited to visit many Geriatric institutions and to submit a report on his impressions of these facilities.

PYLONS FOR ELDERLY AMPUTEES

During the year 18 pylons were supplied to patients treated at the Geriatric Unit and nine fully articulated limbs were also supplied. Most of the pylons were paid for by the Health Department as were most of the artificial limbs. Only four patients were required to pay for their prostheses. Each patient was instructed in the use of his limb and all patients were discharged from hospital. In a careful follow-up it was found that three patients had died but all others were using the limbs supplied. Various modifications have been made to the original pylons. The Repatriation Artificial Limb and Appliance Centre has been very co-operative in the development of these special prostheses. Many elderly patients have thus been helped to regain personal independence, which may have been impossible without the development of the pylons.

The following is a list of pylons and articulated limbs supplied to elderly patients:—

Pylons—

Double above knee rockers	3
Single above knee	1
Single above knee with knee lock	7
Single above knee with knee lock and wooden foot	2
Single below knee	5
Total	18

Prostheses—

Single above knee	4
Single below knee	5
Total	9

SOCIAL SURVEY OF ELDERLY IN BRISBANE

With the help of the Social Studies Department and medical students from the Social and Preventive Medicine Department, a social survey of elderly people in Brisbane was carried out during 1962. A completely random selection of elderly people was interviewed. A total of 253 such people was contacted. A questionnaire was filled in by the interviewer and this questionnaire covered many broad aspects of social problems in this group of the population. The information obtained is being collated and it is hoped, will be published towards the end of this year.

PLANS FOR THE FUTURE

It is hoped that progress will be made on a Geriatric Unit at the Chermside Hospital. Together with this Unit will be a senile assessment unit where patients may be assessed, treated and returned, if possible, to the community. It is hoped by this means to reduce the number of elderly people requiring to be certified and admitted to a Special Hospital.

A Geriatric Admission Ward is being planned and developed at the Princess Alexandra Hospital. This ward should be ready soon. Older buildings in this hospital are gradually being modified and renovated to accommodate long-stay elderly patients.

DIVISION OF NURSING

Adviser in Nursing: E. W. S. SULLIVAN, R.A.N.F.

VISITS TO COUNTRY HOSPITALS

Hospitals at Mackay, Mount Morgan, Bundaberg, Maryborough Gympie, Augathella, Charleville, Mitchell, Miles, Chinchilla, Dalby, Toowoomba, Nanango, Kingaroy, Wondai, Murgon, Monto, Eidsvold, Cracow, Mundubbera, and Biggenden were visited during the year.

The Adviser regrets that pressure of office work has prevented more of these visits, as personal contact between the Division and personnel of hospitals has much benefit to all concerned. The hospitality and transport provided by secretaries and matrons is much appreciated. The Adviser was invited to be the guest speaker at the graduation ceremony at the Maryborough Hospital and appreciated the opportunity to speak to the graduates.

MATRONS' CONFERENCE

The Annual Conference of Hospital and Institutional Matrons was held in Brisbane from May 13th to 17th: Approximately 74 matrons attended. The main theme of the conference was the discussion on the desirability or otherwise of training assistants in nursing, and deliberations on this matter were handed to the Honourable the Minister for Health and Home Affairs. The matrons enjoyed a visit to Geriatric Section, Princess Alexandra Hospital.

Other suggestions brought forward by the matrons were discussed. This conference provides an occasion for matrons to make suggestions and the opportunity for matrons of all hospitals to give their views on any such suggestions brought forward.

The Honourable the Minister entertained the matrons to afternoon tea, and the Royal Australian Nursing Federation held a quarterly meeting during the week, which many attended. This is the only opportunity many country matrons have to attend the meeting of their professional association which is also the registered Union of Employees.

COLLEGE OF NURSING, AUSTRALIA

The Division continues to work in close liaison with the Queensland Branch of the College. Nurses taking courses were aided wherever possible with information to assist them with their projects.

The Adviser delivered lectures to the group taking the Nursing Administration course on "The Responsibilities of the Adviser in Nursing" and "Administration of a Country Hospital". The Nursing Administration course is the first to be held at the Queensland branch of the College and the Department of Health and Home Affairs made available six scholarships for nurses to attend.

The College also conducted a course of Ward Management and Teaching for which six scholarships were also granted. It is regretted that only two of these scholarships were taken up.

The Sister Tutor course was suspended for 1963, but if sufficient applicants are available it is proposed to conduct one in 1964.

CONFERENCE OF NURSES REGISTRATION BOARDS

The Health Ministers, at their annual conference, agreed that Nursing Boards of all States should confer to discuss problems arising in nurse training and registration.

The Conference was convened by the New South Wales Nurses Registration Board and held in Sydney on 27th to 29th March. The registration of New Zealand nurses trained under the new curriculum and the conditions to be imposed on all nurse training schools by the General Nursing Council of England and Wales were discussed. The Adviser was one of the representatives appointed by the Honourable the Minister to attend the conference. The deliberations of the conference have been forwarded to the Honourable the Minister.

REVISED CURRICULUM FOR GENERAL TRAINED NURSES

On 22nd December, 1962, the regulations regarding this curriculum were gazetted. One of the objects of this curriculum was to bring the training of nurses into the new concept of nursing patients with mental disturbances in the general hospitals. Elementary Psychology and Elementary Psychiatric Nursing were included in an endeavour to help the nurses understand these patients. Invalid cookery practise has been discontinued, and lectures in nutrition and meal planning have been included. The teaching of hygiene has been revised. An examination in Principles and Practise in General Nursing in the final year has been included.

VISITORS

The Division was asked to arrange an itinerary for a visiting matron from another State. The Adviser made the necessary arrangements and accompanied her on visits to the various hospitals.

CORRESPONDENCE AND INTERVIEWS

The Division received much correspondence from organisations and individual nurses regarding nursing conditions and employment in Queensland. Although the Division does not undertake employment agency work, it is often in a position to advise applicants regarding the size and working condition of hospitals.

Information is supplied to nurses who enquire from overseas and interstate regarding registration.

Interviews are held with nurses from overseas with regard to registration, also this year the surgical examination failure rate has created problems for those nurses who have completed their training time but cannot register until they pass the surgical examination. The Division makes every endeavour to place these nurses in hospitals where they can receive some extra experience both practical and theoretical in surgical nursing.

Some employing authorities request the Adviser to interview applicants on their behalf.

WASTAGE

Information supplied by Matrons of nurse training schools is outlined in Table CXXVI which appears at the end of this report.

Wastage is not confined to this State or even to nursing. Many statements are made as to the reason for wastage. One of them is that wastage is due to lack of (or poor) selection. Although some research has been made into selection as a cause for wastage, the information is not yet available, so the Division feels that this statement is one of opinion and not yet based on facts.

The large number of applicants for nurse training who have completed some secondary education has provided the opportunity for hospitals to select on an educational criteria, but whether this is the correct one to use is not proven.

The large number of married women who have returned to nursing has alleviated the position of shortage of trained staff, and as this has in no way adversely affected the single trained nurse, it is very satisfactory.

TABLE CXXVI

Wastage of Student Nurses—Queensland Hospitals for the Year 1962

Hospital	Daily Average	Student Enrolment					Total Year 1962	Wastage of Students						Percentage of Total	Age Groups						Educational Standard					Reasons Given for Leaving						
		1st	2nd	3rd	4th	5th		1st	2nd	3rd	4th	5th	Total		17 and under	18	19	20	21 +	Not known	8th and under	Sub. Jnr.	Jnr.	Over Jnr.	Not known	Not suited	Fail Exams	Mar-raige	Per-sonal	Health	Dom-estic	Others **
Atherton	65·2	8	10	8	10	..	36	1	..	2	..	..	3	8·3	..	2	1	..	..	..	1	1	1	..	..	..	1	1	1	..	..	..
Ayr	59·3	13	4	3	5	..	25	7	3	2	..	..	12	48·0	3	4	4	..	1	..	3	3	5	1	..	..	..	4	5	..	..	3
Barcaldine	13·8	..	1	2	3	3	9	..	..	..	1	..	1	11·1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..
Biloela	30·3	7	4	2	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blackall	22·0	1	3	2	..	1	7	..	1	..	..	..	1	14·3	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..
Boonah	21·4	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bowen	25·2		No figures available							Not known			3	..	..	2	..	..	1	..	..	..	..	..	3	..	..	2	1	..	..	..
Brisbane General	896·3	436	127	101	96	..	760	50	62	17	4	..	133	17·5	13	50	37	20	13	..	27	10	71	10	15	14	7	12	1	20	8	71
Brisbane Women's	266·5	151	119	..	..	..	270	31	..	..	..	..	31	11·5	..	..	..	1	30	..	6	..	15	6	4	1	..	6	3	..	3	18
Bundaberg	139·8	27	13	15	18	..	73	5	10	3	..	..	18	24·7	..	2	7	2	7	..	9	1	7	..	1	3	1	6	4	4	..	..
Cairns	164·0	62	22	22	17	..	123	11	6	5	3	..	25	20·3	5	8	5	2	5	..	6	3	12	2	2	4	1	3	6	..	1	10
Charleville	58·0	14	9	2	4	..	29	5	..	..	..	..	5	17·2	..	3	1	..	1	..	1	2	2	..	..	1	..	..	2	..	1	1
Charters Towers	36·3	6	9	..	9	..	24	..	..	..	1	..	1	4·0	..	..	..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..
Chinchilla	39·5	8	9	3	6	..	26	..	2	..	1	..	3	11·5	..	..	..	1	..	2	..	1	1	..	1	..	..	..	1	..	..	2
Clermont	24·6	6	2	1	1	..	10	3	1	..	..	..	4	40·0	1	2	1	..	..	..	3	1	..	..	..	1	..	1	2	..	..	..
Collinsville	23·8	8	5	1	3	..	17	1	1	1	2	..	5	29·4	1	..	..	..	2	2	2	..	1	..	2	..	..	4	..	..	..	1
Dalby	57·8	15	6	4	6	..	31	1	..	1	2	..	4	12·9	..	..	1	1	2	..	2	1	1	..	..	..	1	3	..	..	..	..
Gladstone	46·0	6	11	4	6	..	27	..	2	3	1	..	6	22·2	..	3	2	..	1	..	1	1	3	1	..	..	2	3	1	..	..	..
Goondiwindi	37·3		No figures available				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Greenslopes	51·9	19	19	19	3	..	60	..	..	..	..	..	4	6·7	..	1	2	..	1	..	1	..	2	1	..	1	..	1	..	..	..	2
Gympie	112·1	19	17	11	8	..	55	4	6	2	1	..	13	23·6	..	4	4	1	4	..	3	3	6	..	1	..	2	2	1	1	..	7
Herberton	28·3	2	1	7	1	..	11	1	..	1	..	..	2	18·2	..	1	..	1	..	..	1	..	1	..	..	..	..	1	1	..	..	..
Ingham	53·5	5	3	6	5	..	19	1	1	2	2	..	6	31·6	2	1	..	2	1	..	4	2	..	..	..	..	1	3	1	..	..	1
Innisfail	87·8	19	16	9	16	..	60	..	1	..	..	..	1	1·7	..	..	..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..
Ipswich	194·8	29	32	19	21	..	101	4	2	..	3	..	9	8·9	..	2	2	1	3	1	5	..	3	..	1	2	2	2	1	1	..	1
Isis	19·3	2	3	3	..	..	8	1	1	1	..	..	3	37·5	..	..	..	..	..	3	..	..	2	..	1	..	..	..	1	..	..	2
Kilcoy	24·5	1	2	1	3	..	7	0	..	1	1	..	2	35·0	..	..	..	1	1	..	1	..	1	..	..	..	..	2	..	..	..	..
Kingaroy	44·6	3	9	10	3	..	25	1	..	..	1	..	2	8·0	..	..	..	..	..	2	..	..	1	..	1	..	..	2	..	..	..	..
Longreach	22·1	9	7	2	2	..	20	4	2	..	2	..	8	25·0	1	2	3	1	1	..	6	..	2	..	..	..	2	1	3	..	1	1
Mackay	127·3	37	16	10	13	..	76	7	10	..	3	..	20	26·3	2	10	6	..	2	..	5	6	9	..	..	3	..	6	..	..	4	7
Mareeba	65·4	3	9	5	7	..	24	..	1	..	..	..	1	4·2	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..
Maryborough	190·0	20	17	24	16	..	77	12	7	3	3	..	25	30·8	2	11	5	4	3	..	9	4	12	..	..	1	2	4	4	5	2	7
Miles	23·4	6	5	3	1	..	15	2	1	..	..	..	3	20·0	1	..	1	..	1	..	1	..	..	..	2	1	1	..	1	..	..	..
Mitchell	24·5	3	1	1	..	..	5	..	..	..	..	..	NIL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Monto	20·5	5	2	3	1	..	11	..	1	..	..	..	1	9·1	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..
Mossman	22·2	3	5	2	1	..	11	..	..	..	..	..	NIL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	56·6	13	4	8	5	..	30	2	1	1	..	..	4	13·3	..	1	..	1	..	2	2	..	2	..	..	1	..	2	..	..	1	..
Mount Morgan	38·0	7	11	3	4	..	25	2	1	..	..	..	3	12·0	3	..	..	..	..	..	1	1	1	..	..	2	..	..	1	..	..	..
Nambour	76·6	10	11	2	7	..	30	1	1	1	1	..	4	13·3	..	..	1	1	2	..	2	..	2	..	..	..	..	2	1	..	..	1
Princess Alexandra	997·2	171	110	124	194	..	599	23	18	15	7	..	63	10·5	5	25	17	8	8	..	9	6	36	6	6	5	9	12	10	11	2	14
Proserpine	28·2	4	6	2	5	..	17	..	..	..	..	..	NIL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rockhampton	230·1	40	19	23	17	..	99	10	7	3	2	..	22	22·2	1	5	9	1	6	..	9	..	9	..	4	2	..	5	..	..	2	13
Roma	42·2	39	3	4	4	..	50	12	2	1	1	..	16	32·0	2	6	2	2	4	..	7	1	8	..	..	..	..	4	4	1	1	6
Southport	67·0	9	4	10	10	..	33	5	4	1	1	..	11	33·3	1	3	2	2	2	1	3	3	5	..	..	1	1	4	1	..	..	4
Stanthorpe	43·2	8	4	8	5	..	25	4	..	1	2	..	7	28·0	1	2	3	1	..	..	3	..	2	2	..	..	..	3	1	1	1	1
Toowoomba	189·9	32	28	26	33	..	119	6	3	2	1	..	12	10·1	1	3	1	2	5	..	1	1	7	3	..	1	..	7	1	2	..	1
Townsville	301·5	58	47	20	24	..	149	7	12	8	2	..	29	19·5	..	8	7	8	6	..	9	2	15	2	1	5	7	8	..	2	..	7
Tully	33·6	3	5	4	6	..	18	..	2	..	..	..	2	11·1	..	1	1	..	..	..	..	..	2	..	..	..	..	2	..	..	..	..
Warwick	82·5	18	10	7	6	..	41	4	5	3	..	..	12	29·3	1	3	3	2	2	1	4	3	4	1	..	1	3	4	2	..	2	..
Winton	14·4	4	..	1	4	..	9	..	..	..	..	..	NIL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wondai	37·8	9	5	3	6	..	23	3	1	..	..	..	4	17·4	1	2	..	..	1	..	2	2	..	..	..	1	..	..	1	1	..	1
Totals	..	1,379	785	550	615	4	3,333	231	178	80	48	..	544	16·3	47	168	129	67	117	16	151	58	253	35	47	51	44	126	63	49	29	182

** Dissected as follows—

Retired by Board	42
No Reason Given	19
Transfer	19
Left District	22
Another Position	17
Left Without Notice	16
Can't Cope	9
Family Illness	9
Misdemeanour	7
Miscellaneous	7
Not Interested	5
Dislikes Nursing	4
Homesick	3
Unsettled	3
Total	182

DIVISION OF SOCIAL WORK

Senior Social Worker: M. K. Whiley, B.A., Dip. Soc. Stud.

It is just over three years since this Division was established and the Senior Social Worker was appointed to study and advise on social work needs and to co-ordinate developments in this aspect of the health services, and it now seems appropriate to review the work of the Division against the background of the general developments in social work in the health and medical services in this State.

During this period, Social Work Sections have been set up in hospitals and government departments, and social workers continue to assist disabled, sick, and elderly people with the many social problems they may encounter when they are frail or ill. To a limited extent, casework assistance has been made available for families in difficulties, especially where children are thought to be at risk, and in the guidance clinics many parents are helped with their children's problems.

NEW DEVELOPMENTS

Unfortunately very little extension of social work services has been possible this year because of the difficulties of recuiting suitably qualified staff, although the requests for help in all sections have increased considerably. Of special interest, however, are two new developments which have been possible this year.

In the State Children Department, a social worker has been appointed to help in the plan to recruit more foster family homes for children who are in need of care, even for temporary periods, away from their own families. This appointment is in keeping with the Department's policy first to try to help more children within their own families, or, where this is not possible, to arrange for their care in the supportive atmosphere of other family groups. The State Children Department is not yet able to undertake a full coverage of preventive family casework but through co-operation between that Department and social workers in the health services, many more families are now offered assistance in overcoming problems while there is still time to prevent, or at least to diminish, the effects of the family difficulties on the health and well-being of their children. The Senior Social Worker and another social worker will continue to work closely with the State Children Department in these important preventive aspects of family service.

Another new appointment of special interest is the appointment of a Psychiatric Social Worker to the Division of Psychiatric Services. He will be responsible for developing social work services for those who are under psychiatric care or treatment. Prior to this appointment, a small number of people, particularly some who were concerned about members of their families who were in need of psychiatric care, were helped by the Senior Social Worker. These families will now be referred to the psychiatric social worker. At the same time, the need for a psychiatric social work service has become more evident, as that Division, in line with modern psychiatric practice has changed its policy, and is now offering more help, treatment and care for patients in the community through the normal health and medical facilities. The new scheme will not require patients to remain so long as in-patients in special hospitals. The importance of after care services for the mentally ill, even after only a short stay in hospital, cannot be over-emphasised. Equally important is the help necessary for family difficulties linked with the patient's illness.

Unfortunately it is not yet possible to offer a comprehensive casework service in this field, and some advertised psychiatric social work positions still remain vacant. However, the psychiatric social worker is working closely with the Senior Social Worker, with other social workers in the health services, and with voluntary organizations interested in the welfare and care of mentally ill patients. He is also available to other professions for consultation on social aspects of mental illness, and will assist in the practical training of social work students.

SOCIAL WORK IN HOSPITALS

A brief comment on social work in hospitals will be of interest. In the Women's Hospital, the social work department which was established towards the end of the last financial year has proved to be a helpful service to many families, where social pressures have been accentuated by the arrival of a new baby into the household, or where problems are linked with the mother's admission to hospital.

In co-operation with the State Children Department, a number of unmarried mothers have been enabled to arrange suitable care for their babies and to work towards constructive planning for their own rehabilitation. As this work continues it should develop as an integral part of the services for families. It should also make possible important early work with families who have handicapped young children requiring special care and training.

At the Marjorie Warren Geriatric Unit in the Princess Alexandra Hospital, the social worker continues to work as a member of the medical team, helping with the social problems of elderly folk both in hospitals and in their own homes and in arranging suitable residential care. However, difficulty is still being experienced in obtaining staff to extend this service to other sections of the Princess Alexandra Hospital.

The Brisbane General Hospital is also finding it difficult to secure enough social workers to meet the heavy demands for social work assistance at all stages of treatment and rehabilitation.

After a short time without social workers, full-time social work services have been resumed in the Queensland Radium Institute and also in the Toowoomba Hospital. Townsville and Cairns Hospitals still continue to offer help for patients with those social problems which are in some way related to the patient's illness.

In spite of the staffing difficulties, hospital social work departments have been particularly ready in making available practical training facilities for social work students. It is hoped that, within the next few years, more medical social workers will graduate from the University of Queensland and will be absorbed into these departments so that services may be extended to a greater number of people in this State.

CO-ORDINATION OF SERVICES

Since the family is the basic unit in our community, health and welfare services, which provide for the patients and their families, must be viewed as an integrated whole. It is important, not only for economy of resources and professional services, but also in the interests of the best kind of service for patients, that social work services be co-ordinated and over-lapping of services avoided. For this reason the Senior Social Worker is readily available for consultation with other officers of the Department, and with social workers in other sections of the health services, on matters relating to the development of social work. She has also undertaken some responsibilities for surveying and advising on special problems.

COMMUNITY ACTIVITIES

The Senior Social Worker has taken an active interest in a number of community services. As the Department's liaison she has co-operated with the Council of Social Services in the revision of the Directory of Social Services in Queensland. Other social workers in the Department are also interested in community activities, particularly in those activities concerned with the development of social work and other family health and welfare services.

The Child Welfare Legislation Committee, of which the Senior Social Worker has been a member, has now completed its inquiries into children's services and legislation in this State, and a report will soon be available for the Minister. Because of the interdependence of child health and welfare services it is planned that the Senior Social Worker will continue to be available, if necessary, for any further aspects of this work.

ANALYSIS OF WORK

Within the context of these developing social work services, the Senior Social Worker's duties have included work which is largely of a liaison, co-ordinating or consultative nature. There have also been a number of requests—both inter-departmental and from other organisations and the community generally—for information about social services. It has been possible for many of these requests to be referred to other social workers direct for help.

In a number of the requests, it was necessary to arrange at least one personal interview, so that some assistance could be given towards clarifying the real problem, before the person who was in need of assistance could be referred for the appropriate service. In a limited number of cases, where no other service existed to help a person or his family, a direct casework service was offered through the Senior Social Worker's Office. These cases included mainly family problems where children were thought to be potentially at risk, and inter-related health and social problems where help had been sought through this Department, and where frequently the patient was not in touch with a medical service. There was also a small number of cases where problems of some complexity required close co-operation with a number of departmental and other services, and it was thought that these families could best be helped through this office.

The following analysis of this small group of cases will be of interest:—

Number of Cases—	
Total	149
New Requests	117
Carried forward from previous year	32
Currently receiving attention on 30th June, 1963	42
Source of Referral—	
Inter-departmental	75
Other Government Departments	6
Client or Associate direct to social worker	21
Other Social Agencies (including general practitioners and social workers in hospitals)	15
Service Given—	
*(1) Casework service related to—	
(*a*) Family, child welfare and marital problems	32
(*b*) Physical or mental illness or disability (including rehabilitation)	25
(*c*) Other (these included service to six aged persons where other complicating social factors were operating, e.g., aged migrant ineligible for Commonwealth benefits under special circumstances)	8
†(2) Social investigation relating to—	
(*a*) Mental illness or defect	25
(*b*) Physical illness or disability	42
(*c*) Care of the aged	13
(*d*) Family and child welfare	63
(*e*) Accommodation	32
(*f*) Employment	20
(*g*) Financial problems	7
(*h*) Other (including problems related to education, unmarried motherhood, cultural difficulties, &c.)	14
†(3) Referred to other Departments or Social Agencies for service—	
(*a*) Family and child welfare	9
(*b*) Care of aged	5
(*c*) Financial or material aid	10
(*d*) Medical or psychiatric treatment/assessment	13
(*e*) Other social casework service (social work departments in hospitals, &c.)	24
(*f*) Other	33

*Casework service extending over a fairly long period or of an intensive nature.

†Some families required help with more than one problem.

PROBLEMS OF SPECIAL INTEREST

1. Of special interest are the number of requests which have come to the Division where assistance has been sought for unmarried expectant mothers. Eight (8) of these young women were helped through casework offered within this Division, some were referred to other services, and in response to a number of other requests, social work consultation on appropriate resources was made available for medical practitioners and other professional people. The kind of problem which is being brought to the Health Department would appear to indicate that, in addition to social work in hospitals, there is a need for a community service where these mothers can be offered help as early as possible. This is particularly important where the young women have not yet sought medical attention. If practical help and emotional support is available at this stage when young women are under considerable stress, they can often be assisted to seek appropriate medical and other care as part of a constructive plan towards their own and their baby's future.

Further consideration will be given to this problem during the coming year, in consultation with the Director, State Children Department.

2. A survey is being carried out by the senior social worker in co-operation with the Division of Tuberculosis and the State Children Department, on the care of children whose mothers are admitted to hospital for treatment of tuberculosis or an allied condition usually requiring long term medical care. For the three months from April to June 30th, 29 mothers were interviewed regarding the care of 81 children. This survey will continue.

3. A social worker has worked closely with the Division of Sanitation in a survey related to the incidence of Ascaris (round worm) in a small group of families who are living in poor conditions. Of 56 children, aged 14 years and under, included in the survey, 22 were positive for Ascaris. Although this may appear to be essentially a health problem, treatment can be more effective if the social conditions which have contributed to the high incidence of the infection can be improved at the same time. This work will continue during the coming year.

COLOMBO PLAN FELLOWS

During the year, two Colombo Plan Fellows, Mr. Bernard Samaranayake, and Mr. Edward Abeyasekera, from the Department of Social Services in Ceylon, spent some time in the Division studying various aspects of the welfare services. The Department was glad to be able to co-operate with the Commonwealth Departments of Social Services and Education in arranging suitable study programmes and making facilities available to these two visiting officers.

SOCIAL WORK STUDENTS

The Department recognises its responsibility towards the training of social work students, by making facilities available within the health services, for the practical experience which is an essential part of social work training. As social workers become experienced in their fields, it is the policy, where possible, for some time to be made available to assist the University in the supervision of students' practical training. At present some practical training is available to a limited number of students in the State Children Department, Division of Welfare and Guidance Clinics, and the Division of Social Work, and in the major hospitals. It is planned to extend this to include facilities within School Health Services and in the Division of Psychiatric Services. Even so the practical training facilities for social work students within this State will still remain a problem for some time, since the suitability of facilities for this purpose is to a certain extent dependant upon the supply of experienced social work supervisors.

SCHOLARSHIPS

This year, for the first time, three State Government scholarships have been awarded to enable students to undertake social work training in the University of Queensland, with a view to working later in the health, welfare or hospital services in this State. At the same time an officer who was already working in the Department and interested in this work, was seconded for training in social work. As these students become available for employment upon graduation, they should be able to help considerably in the extension of these services.

FLYING SURGEON SERVICE

Flying Surgeon: CHRISTOPHER CUMMINS, F.R.C.S. (Edin.), F.R.A.C.S.

Anaesthetist: Dr. WALTER BIGGS, M.B., B.S. (Q'ld.)

Pilot: Captain JOHN WHITING

The 1st June, 1963, concluded the fourth year of operation of the Flying Surgeon Service.

There has been a steady and increasing demand on this service since its initiation and the figures below show the changes each year.

——	Miles Flown	Patients Seen	Routine Operations	Emergency Operations
1959 (7 months)	42,246	862	173	39
1960	68,086	1,192	271	68
1961	91,052	930	284	94
1962	99,661	1,128	358	82
1963 (1st 6 months)	51,345	626	164	41

Although graphically this shows an upward trend the pattern appears to be flattening.

During the year, regular monthly visits have been paid to the following towns:—Aramac, Barcaldine, Blackall, Clermont, Cloncurry, Collinsville, Emerald, Hughenden, Julia Creek, Mary Kathleen, Mount Isa, Muttaburra, Quilpie, Richmond, Roma, Surat, and Winton.

Mitchell has been visited on a few occasions for emergencies but because of an already full programme, we have been unable to allot a regular day for this town although it would have qualified. Springsure still remains unvisited because its airfield is sub-standard but patients from there are seen at Emerald.

Tambo and Isisford have been visited once but Alpha was not visited because there has been no doctor there.

Over the year further additions and improvements have been made to many of the western hospitals. Nearly all the towns visited now have reasonable theatre lights and most of them have air-conditioning in the theatres, while other necessary additions have been approved.

Dr. Cummins took a two-weeks period of study leave in May, 1963, and attended the Royal Australasian College of Surgeons meeting in Melbourne and on the way back delivered a lecture on the Flying Surgeon Service at the Royal Sydney Hospital. This was primarily at the request of Dr. Charles Huxtable who is trying to interest the New South Wales Government in the provision of a similar service in the west of that State.

On his return to Brisbane visits were paid to the Princess Alexandra Hospital, the Brisbane General Hospital, and Greenslopes Hospital. An annual period of study leave is an essential in this sort of work where one's contact with other specialists is almost non-existent.

A system of priority numbers has now been in use for well over a year and its value has been proven over and over again. There are three priorities of calls and any message or telephone or radio call must be preceded by the appropriate number. Priority one applies to cases of extreme emergency where immediate surgery is essential; priority two applies to cases which require surgery as an emergency but in whom a delay of a few hours will not affect the prognosis; and priority three applies to all calls for advice or discussion of routine visits, etc.

This system makes it much easier to decide whether to change course in mid-flight or to decide on changes of schedule when only bare details are available.

The heavy rain and floods in western Queensland in February this year made very little difference to the schedule of work as practically all the towns visited have "all weather" strips.

In conclusion, the goodwill and close liaison of the participating doctors is an essential to the efficient running of the service. Its success and ready acceptance by all of them can only be attributed to the help and co-operation that has been received from them throughout the year.

LEGISLATION

"*The Health Acts,* 1937 *to* 1960," were amended by "*The Health Acts Amendment Act of* 1962," assented to on 13th December, 1962, providing—

(*a*) A new Division XIA dealing with Convalescent Homes and giving the Director-General power to issue licenses and make Regulations concerning them.

(*b*) The repeal of subsection 3 of section 110 of the Principal Act giving a tighter control in the prohibition of the sale of any food, drug, or article which, in the opinion of the Director-General, is injurious to life or health.

(*c*) The minor amendment of section 152 (1) of the Principal Act concerning the Director-General's power to make Regulations.

"The Convalescent Homes Regulations of 1963" were gazetted on 30th March, 1963.

"The Poisons Regulations of 1958" were amended in a minor respect to provide for submission of information on new drugs which, under the amendment, automatically become "Restricted Drugs" unless otherwise scheduled.

"*The Mental Health Act of* 1962" to make new provision with respect to the treatment and care of mentally ill persons and with respect to their property and affairs was assented to in December, 1962, and Regulations under the new Act were subsequently made.

ACKNOWLEDGMENTS

I have much pleasure in recording my gratitude to all members of the staff for their loyal service, support, and conscientious attention to duty.

Acknowledgement is also made to the Agent-General for Queensland and his officers for the assistance given me whenever it was asked for, and to other Government Departments for their co-operation, particularly the Government Statistician who, as usual, has been of great assistance in preparing the vital statistics section of this report and has supplied other statistical details from time to time throughout the year. I would particularly thank the Commissioner of Police and his officers for their co-operation in the road accident research project.

Members of the Australian Medical Association have again been most co-operative and it is desired to express appreciation for this. I would particularly mention the President, Dr. N. V. Youngman.

I would also thank the members of the various expert committees who have given so freely of their time and advice.

I particularly thank Dr. A. D. D. Pye, General Superintendent of the Brisbane Hospital, and Dr. O. W. Powell, Medical Superintendent of the Princess Alexandra Hospital, for the assistance they have given during the year.

APPENDIX

ANNUAL REPORT OF THE NATIONAL MOSQUITO CONTROL COMMITTEE, 1962-1963

The Committee has provided advice on mosquito problems, identification of specimens, assistance to other institutions and individuals engaged in mosquito work, and has continued its research into the systematics, biology, and distribution of Queensland mosquitoes. The co-operation of the Queensland Institute of Medical Research in providing transport and the help of its Assistant Scientist, Mr. G. Barrow, for field work in North Queensland is gratefully acknowledged.

1. FIELD WORK

Collections were made in the following areas:—Pimpama Alberton district, July 26; Peel I, September 15; Caloundra, October 14; Atherton district, October 23-27; Mount Molloy, October 27-29; Innisfail district, October 30-November 3; Richmond, November 4-8; Ravensbourne, November 18; Noosa, March 12-13; Imbil, April 11-15; Mount Greville, June 8-10.

Pimpama Alberton District

Visited to check sites which had been marked during the Brisbane City Council's aerial survey as probable breeding places of *Aedes vigilax*. These were confirmed as breeding places, but breeding was taking place over a more extensive area than had been marked. The plants *Salicornia* and *Suaeda* (which showed as reddish tracts from the air) were found to be good indicators of salt-marsh areas suited to *A. vigilax*, but it was breeding also in areas almost entirely vegetated with salt-water couch grass. At this visit in late July, no mosquitoes were biting, but pupae and all stages of larvae of *A. vigilax* were taken, confirming that it breeds all the year round in South-East Queensland. Its breeding sites have at some time been extended in this district by areas of old tea-tree swamp which are now reached by high tides. Larvae of five other species were collected.

Peel I

The eight species collected are usually found in coastal tea-tree swamp and mangrove areas.

Noosa

The Forestry Department kindly made available a "Climbing Bicycle" for this field trip, the primary objective being to work out the life history of *Aedes spinosipes*, which was known to occur in the Noosa rainforest, and thought to breed in treeholes, possibly high above the ground. Mr. G. Monteith collaborated in the search. Larvae of *A. spinosipes* were not found, but 22 adults of this species were taken biting; these failed to deposit eggs when kept alive in the laboratory, though some had developed eggs. Six new records for the Noosa-Tewantin area were obtained, viz., *Mansonia variegata* (first Queensland record), *Anopheles corethroides*, *Tripteroides quasiornatus*, *Toxorhynchites speciosus*, *Aedes rubrithorax*, *Aedes palmarum*, *Aedes alboscutellatus*. The previously unknown larva of *Aedes wasselli* was collected from a treehole and reared. At Mountain Creek, Buderim Mountain, an apparently undescribed *Aedes* (*Verrallina*) species was collected for the first time.

Imbil

Twenty-five species were collected; most interesting was *Aedes imperfectus*, biting in numbers on a mountain ridge; the only previous Queensland record was a single specimen from Mount Pleasant. In Victoria this species breeds in temporary ground pools.

North Queensland

Sixty-five species were collected.

(1) THE ATHERTON AREA

This district has been little collected since the second World War, when many army installations were located there. Wartime specimens are no longer available. In more recent years there has been extensive mosquito collecting to both the east and the west of it for virus research, and much more is known about the mosquitoes of Cape York Peninsula. A check of the species occurring in the Atherton area was therefore undertaken. As it was just before the end of a prolonged dry period, species collected are those that persist in the area, but the collection was not fully representative since species which breed in temporary pools or in treeholes, and survive dry periods in the egg stage, were poorly represented. The possibility of increased mosquito breeding resulting from the expansion of irrigation was examined. Collecting sites were on Palmerston Highway; Innot Hot Springs; Evelyn; Bromfield Swamp, West of Malanda; Atherton; Rocky Creek, 10 miles North of Atherton; Danbulla area on North side of Tinaroo Dam; and West Barron Channel between Rocky Creek and Parada; 30 species were collected.

Important findings were (i.) *Anopheles powelli* at Rocky Creek, 10 miles North of Atherton (previously recorded from Queensland only near Cape York); (ii.) *Anopheles corethroides* widespread on the Atherton Tableland. A species which requires deep shade, usually provided by trees, it has adapted itself to cleared paddocks where a dense growth of grass in small streams provides the necessary shade (probably Army reports of *Anopheles stigmaticus* referred mainly to this species); (iii.) species associated with the West Barron irrigation channel were *Anopheles bancroftii, Anopheles annulipes, Culex annulirostris* and *Culex bitaeniorhynchus*. Breeding places were a pondage dam, seepage pools, and a flooded pasture at Parada. As almost all irrigation at present is by overhead spraying, most mosquito breeding places resulting from the irrigation project are due to seepage.

(2) MOUNT MOLLOY AREA

This is the type locality of *Aedes moloiensis*, which is known only from females; it may also be near the northern limit of range of southern species which are found on the Atherton Tableland, and southern limit of New Guinea species found on Cape York Peninsula.

Thirty-two species were collected. Important findings were (i.) previously unknown larva of *Aedes elchoensis* from a treehole; (ii.) confirmation of presence of *Culex pseudomelanoconia* and *Culex douglasi* in North Queensland (collected at Devil Devil Creek, 15 miles North of Mount Molloy); (iii.) an apparently fairly constant and distinctive variety of *Culex annulirostris* was common at Mount Molloy, and a good series of all stages was obtained. This should help to elucidate problems of identification of *C. annulirostris* in North Queensland.

(3) INNISFAIL AREA

Twenty-eight species were collected. Important findings were (i.) a new undescribed species of *Uranotaenia* taken in a light trap at Bramston Beach; (ii.) *Malaya genurostris* collected at Mission Beach; not previously known south of Edge Hill.

(4) RICHMOND

The principal object was to repeat a previous collection of *Aedes* from temporary pools, taken in a drought from pools caused by overflow of a boredrain; one of these species is still imperfectly known. Though the same depressions were flooded from the boredrain, no *Aedes* larvae were obtained. Dry treeholes which were filled with water, and collected after two or more days, provided interesting material; a new undescribed species of *Aedes* was reared from these treeholes.

2. PUBLICATIONS

The following papers were published during the year:—

MARKS, E. N., 1963. A Revision of the Subgenus *Chaetocruiomyia* Theobald (Diptera:Culicidae). *Pap. Dep. Ent. Univ. Qd* **1** (13): 189-211.

MARKS, E. N., 1963. The First Record of *Danaus plexippus* L. from Australia. *J. ent. Soc. Qd.* **2**:8.

MARKS, E. N., 1963. The Subgenus *Ochlerotatus* in the Australian Region (Diptera:Culicidae). V. The Stricklandi Section. *J. ent. Soc. Qd.* **2**: 31–47.

MARKS, E. N., 1963. Silvester Diggles—a Queensland Naturalist One Hundred Years Ago. *Qd. Nat.* **17**: 15–25.

DOHERTY, R. L., CARLEY, J. G., MACKERRAS, M. J., and MARKS, E. N., 1963. Studies of Arthropod-borne Virus Infections in Queensland. III. Isolation and Characterization of Virus Strains from Wild-caught Mosquitoes in North Queensland. *Aust. J. exp. Biol.* **41**: 17–39.

The following paper is in the press:—

MARKS, E. N., and NYE, E. R. The Subgenus *Ochlerotatus* in the Australian Region (Diptera:Culicidae). VI. The New Zealand Species.

The published papers include descriptions of four new species of Australian mosquitoes and three new life histories.

3. ACQUISITIONS

Paratypes of five recently described species of Australian mosquitoes have been received from Dr. N. V. Dobrotworsky, and a valuable series of five species of *Mansonia*, related to Australian species, from the Institute of Medical Research, Kuala Lumpur, Malaya.

4. IDENTIFICATIONS

Specimens submitted for identification provide valuable records and research material.

QUEENSLAND: W. Brandt (Saibai I.); T. E. Woodward (Mossman, Mount Tinbeerwah); V. Reilly (Machan's Beach); H. Standfast (Mitchell River Mission, Innisfail); D. Dalgleish (Brighton); E. Abbs (Fig Tree Pocket); M. Orr (Camp Mountain); M. Walker (Indooroopilly); G. Monteith (Maryborough, Maleny, Whiteside, Eaton's Crossing, Mount Glorious, St. Lucia, Lamington National Park, Dunwich, Stanthorpe); J. MacCallum (Roma); M. McKenzie (Yandina); Brisbane (C. Hembrow).

NEW SOUTH WALES: D. H. Colless, A. Dyce, G. Monteith, I. C. Yeo, M. J. Mackerras.

VICTORIA: N. V. Dobrotworsky, G. W. Douglas.

WESTERN AUSTRALIA: E. J. Britten.

NEW ZEALAND: E. R. Nye, L. J. Dumbleton.

TIMOR: G. Gross.

NEW GUINEA: J. Barrett, D. J. Lee.

5. PUBLIC HEALTH

Collections were received for identification through the Department of Health and Home Affairs from—

Beachmere Progress Association

Esk Shire Council

Mulgrave Shire Council (two collections)

Warwick.

Mosquitoes were also identified for Brisbane and Redcliffe City Councils.

As an Education Week project, the Stanthorpe Shire Council arranged for school children to collect mosquitoes, and submitted 61 samples containing 226 mosquitoes for identification. These showed *Culex fatigans* to be plentiful in the town.

The Brisbane City Council Health Department arranged a general aerial survey of potential breeding grounds of *Aedes vigilax* from Caloundra to Tweed Heads, and invited Dr. Marks to accompany two Council Health Inspectors on the two flights on 10th and 19th July, during which probable breeding areas were roughly mapped. The most extensive areas were along East and West sides of Pumice Stone Channel; Cabbage Tree Creek to Brisbane River mouth; mainland shores, and islands of Moreton Bay from Redland Bay South to Coombabah Lake. As noted in the report on field work, areas mapped in the Pimpama district were checked by ground inspection.

6. SUMMER MOSQUITO INFESTATION OF BRISBANE

Mr. J. T. Brooks has continued his regular collections at Taringa which show that *Aedes notoscriptus* is a common semi-domestic species from August to May. In the spring *Aedes vigilax* was not taken until 29th October and was not numerous until 21st November, with further waves on 18th December and 4th January; a plague of this species occurred on 25th-26th March. Field work at Pimpama showed that *A. vigilax* larvae were plentiful in late July, and large adult populations might have been expected early in the season. The dry, and then continued wet weather was apparently not favourable to this, and the heavy rains did not lead to excessively heavy infestations of *Culex annulirostris* as have occurred previously.

7. NEW RECORDS FOR QUEENSLAND

The following have been added to the Queensland list of mosquitoes:—*Culex globocoxitus* (Quilpie, L. S. Smith); *Mansonia variegata* (Noosa); *Uranotaenia* sp. No. 123 (Bramston Beach)—adults only collected; *Aedes* (*Macleaya*) sp. No. 121 (Richmond)—all stages collected; *Aedes* (*Verrallina*) sp. No. 122 (Budermin)—female only collected.

Three previously unnamed species which occur in Queensland were described in 1963 from Victoria by Dr. N. V. Dobrotworsky—*Aedes imperfectus, Aedes subbasalis,* and *Culiseta antipodea.*

8. SYSTEMATICS

Type and paratype specimens in the collection were catalogued—these total 393 specimens representing 89 species. The reference collection was transferred to trays, and part of the general collection has also been transferred. This new method of cabinet storage makes it much easier to work on or to expand the collection. The collection includes over 450 species of mosquitoes from the Australian region.

Two taxonomic papers on the subgenus *Ochlerotatus* were completed (see publications). A paper supplementary to the revision of *Chaetocruiomyia,* and a paper on subgenus *Geoskusea* are in preparation (paratypes of *Geoskusea* species have been received on loan from J. N. Belkin). During a visit to Sydney for A.N.Z.A.A.S., a check was made of specimens of several species under study, in the Macleay Museum and School of Public Health and Tropical Medicine. Over 200 slides, principally of larval and pupal skins linked with adults, have been prepared during the year.

9. MISCELLANEOUS ACTIVITIES

Assistance was given to Miss J. Bryan in her honours project on *Aedes vigilax* which has now been completed. Manuscripts of papers on mosquitoes have been checked for other authors and specimens lent from the collection for study. Paratypes of species recently described were distributed to appropriate institutions.

Advice on a plague of sandflies (*Simuliidae*) was furnished to the Medical Officer, Blackall, and an A.B.C. interview on these sandflies was given by Dr. Marks.

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